

BCM 3.0

Beta Tech Transfer

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core Telephony

Increased Station Capacity - Introduction

- BCM 2.x currently only allocates 16 digital sets per DS-30 resource. Although a DS-30 provides 32 time slots (16 B1 and 16 B2) only the B1's are used except for the DSM's that have Companion.
- To achieve the increased Digital Station capacity, a new DSM will be used to access the B2 channels that were not previously used.
 - A DSM16+ will use $\frac{1}{2}$ a DS-30
 - A DSM32+ will use 1 DS-30
- The new media bay modules can be easily identified from the labeling on the front. The new plus modules are designated so with a + sign after the label. Besides labeling the part numbers are also different.

DSM Part Numbers

Older Non-Plus MBM's	Part Numbers	
BCM-DSM16 - 16 Digital Station Media Bay Module	NT7B08AAAD	A0803599
BCM-DSM32 - 32 Digital Station Media Bay Module	NT7B09AAAC	A0803600
New Plus MBM's	Part Numbers	
BCM-DSM16+ - 16 Digital Station Double Density Media Bay Module	NT7B08AAAL	A0882619
BCM-DSM32+ - 32 Digital Station Double Density Media Bay Module	NT7B09AAAD	A0882620

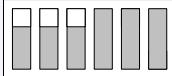
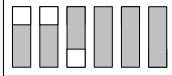
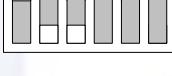
Increased Station Capacity - Requirements

- For North America you will have the choice of selecting a Partial Double Density configuration (PDD) or a Full Double Density configuration (FDD). Other Market profile's, such as Europe, will always be FDD because they do not support Companion.
- The PDD configuration allows the installation and configuration of Companion in Module 6 and 7 (no splitting of the B1s' and B2s').
- Configuration upgrades that are supported. (where 2/6 and 3/5 represent the DS-30 split of the BCM)
 - For BCM 2.5 and FP1 Upgraded Systems to BCM 3.0
 1. 2/6 -> PDD and 2/6 -> FDD
 2. 3/5 -> PDD and 3/5 -> FDD
 - For BCM 3.0 Systems
 1. 2/6 PDD -> 2/6 FDD
 2. 3/5 PDD -> 3/5 FDD
 3. 2/6 PDD -> 3/5 PDD -> 3/5 FDD
 4. 2/6 PDD -> 2/6 FDD -> 3/5 FDD
- If Companion will ever be installed on a system it is key to use PDD. If FDD is selected and then Companion needs to be added the MSC core will be cold started (defaulted) when changing to PDD.
- In order to accommodate the larger system the number of Target lines has been increased (lines 241 to 492).

Increased Station Capacity - Installation

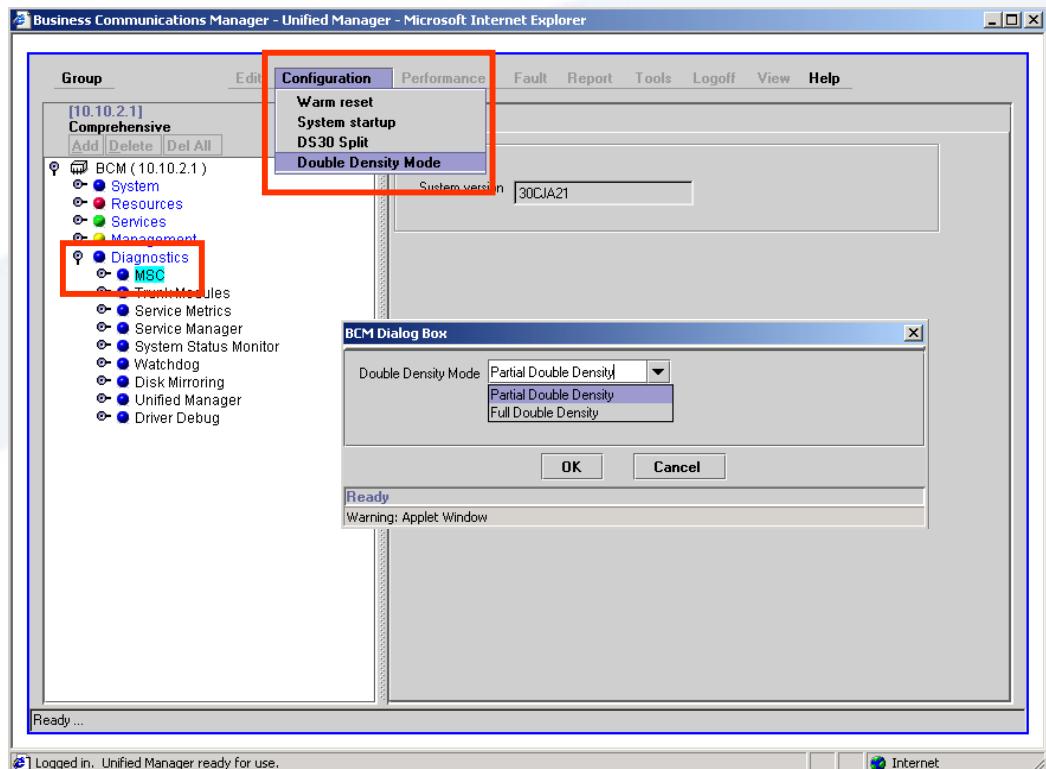
- **The new MBM's have different dip switch settings for the first 3 dip switches if they are to be used in a double density environment.**
- **The 2 new modes are:**
 - Expanded A – Uses the B1 channels of the DS-30
 - Expanded B – Uses the B2 channels of the DS-30
- **Dip switch settings for the DSM's are as follows:**

DSM Dip switch settings

DSM16+	DSM32+
	Normal
	Normal
	Normal
	Normal
	Expanded A
	Expanded B
	Normal
	Normal
	Normal
	Normal
	Expanded A / Expanded B
	Expanded A / Expanded B

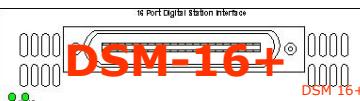
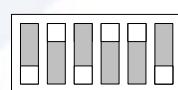
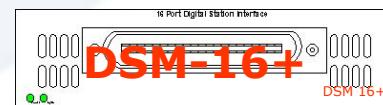
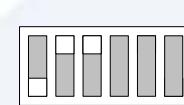
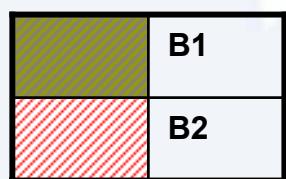
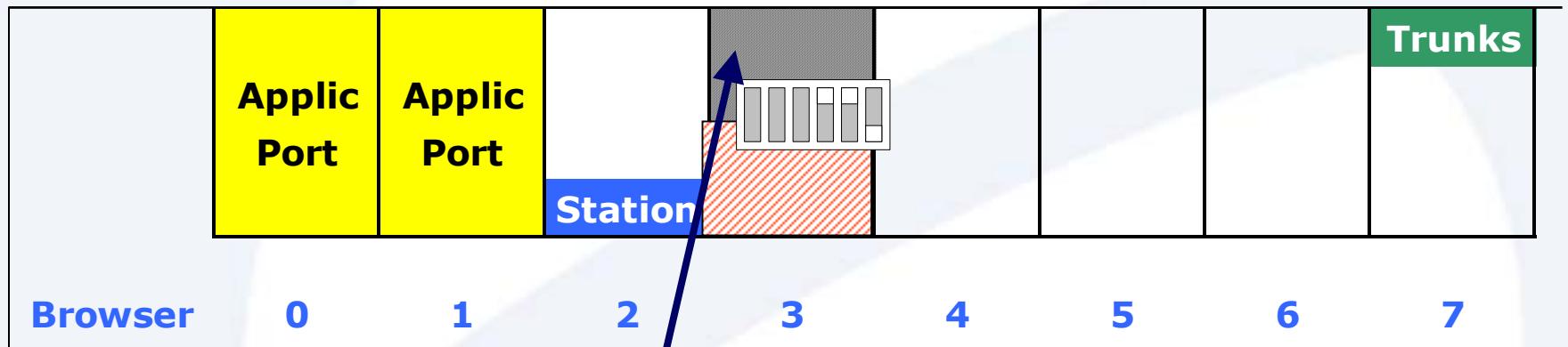
Increased Station Capacity - Programming

- To Configure PDD and FDD use Unified Manager and navigate to Diagnostics/MSC and the use the configuration pull down menu.
- Partial Double Density.
 - Convert B2 DNs per DS30 to B1 DNs except for Bus 6 & 7.
- Full Double Density.
 - Convert B2 DNs per DS30 to B1 DNs
- Note: Remember to use the upgrade rules from the previous slide.



Increased Station Capacity – Example 1

- Example of 2 DSM-16+'s on 1 DS-30

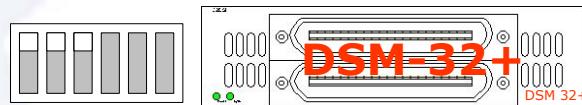
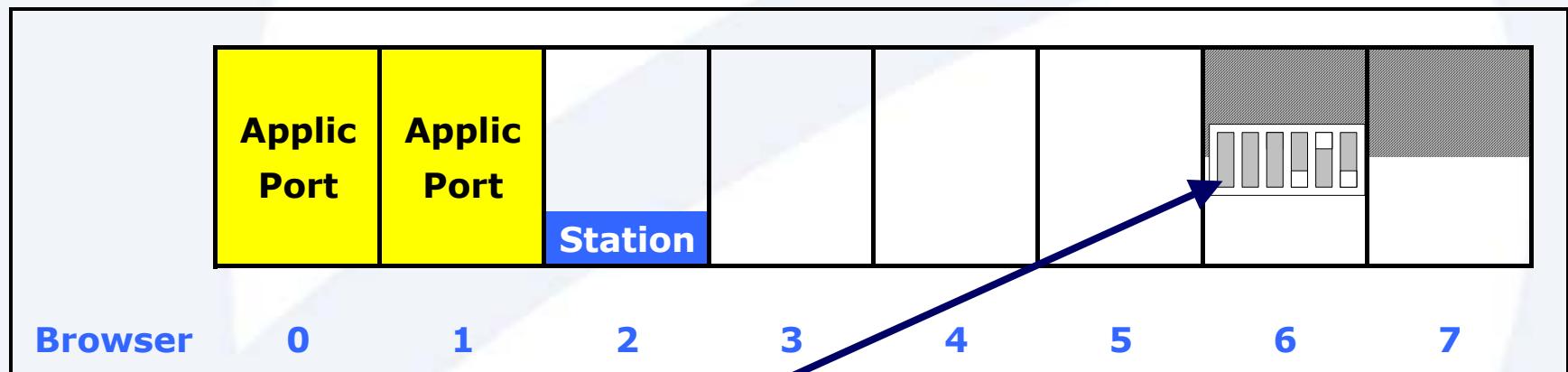


In this situation the DSM-16+ will use Module 3 (B1 channels only).

The DSM-16+ is configured for Module 3 (B2 channels only).

Increased Station Capacity – Example 2

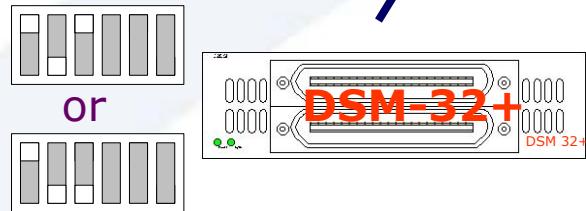
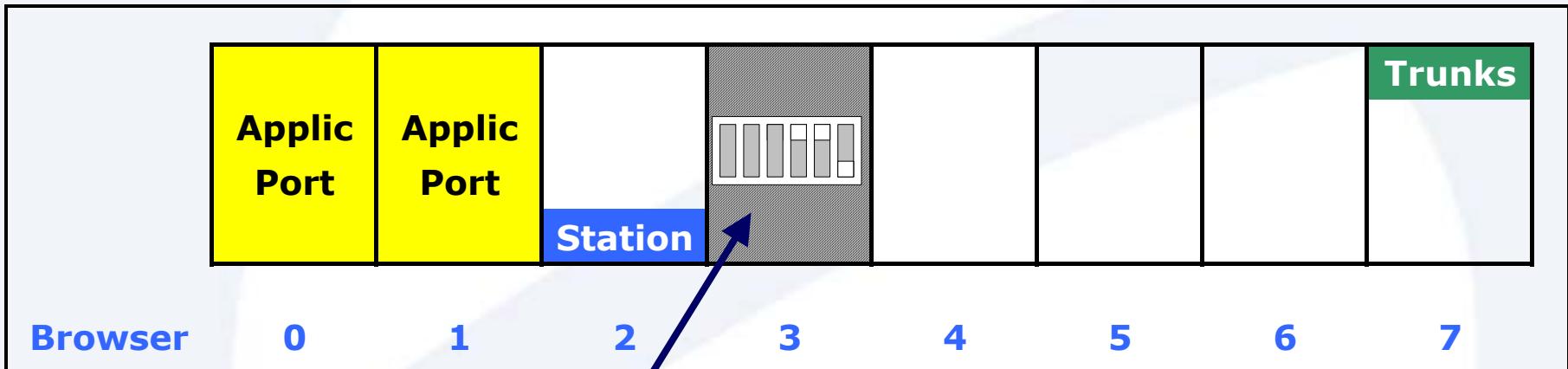
- Example of a DSM-32+ not taking advantage of the new capacity. This would be used in a situation where Companion was needed.



In this situation the DSM-32+ will use Module 6 & 7.

Increased Station Capacity – Example 3

- Example of the DSM-32+ taking advantage of the new capacity.



In this situation the DSM-32+ will use Module 3.

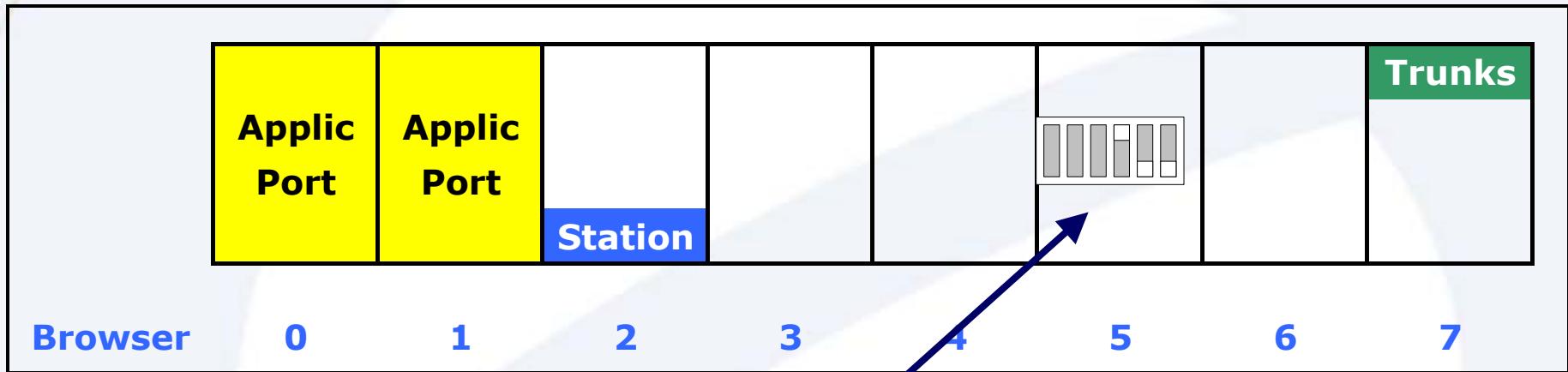
Increased Station Capacity Analog

- It is now possible to install 4 BCM Analog Station Modules per DS-30.
- Any BCM Analog Station Module WILL work. There are NO new MBM's needed.

Note: The same rules apply in that no other MBM can share the DS-30 resource.

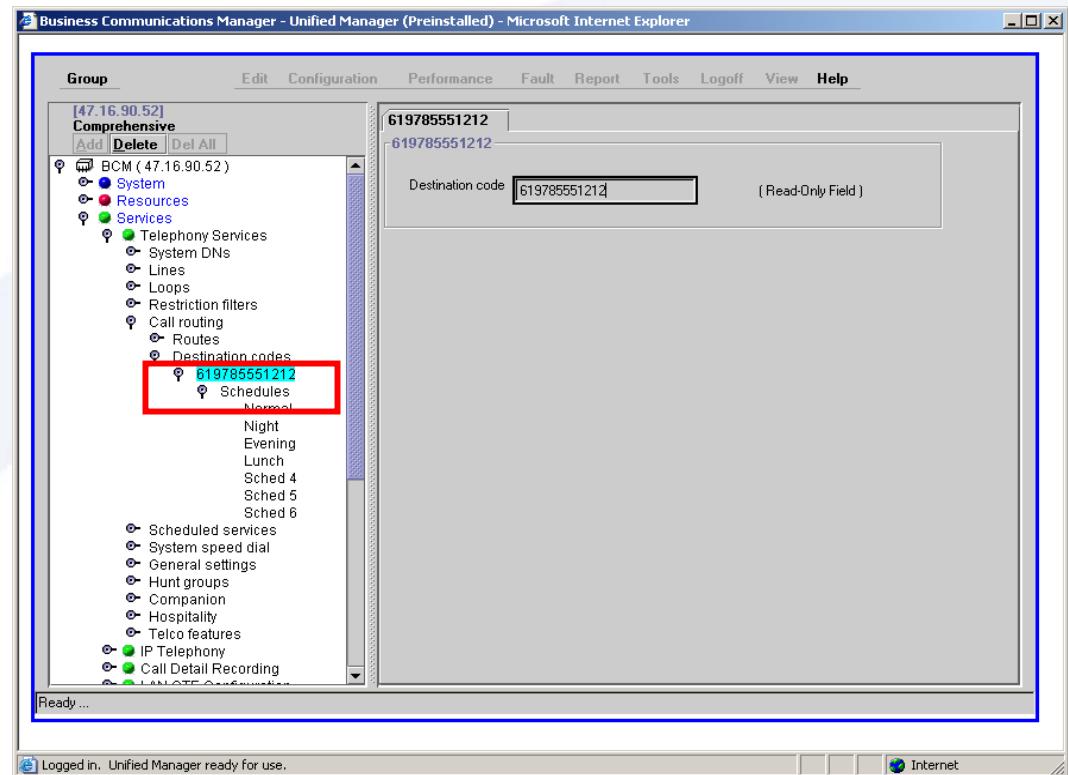
Increased Station Capacity Analog

- Dip switch settings offset ASMs'.



Increased Destination Code Length

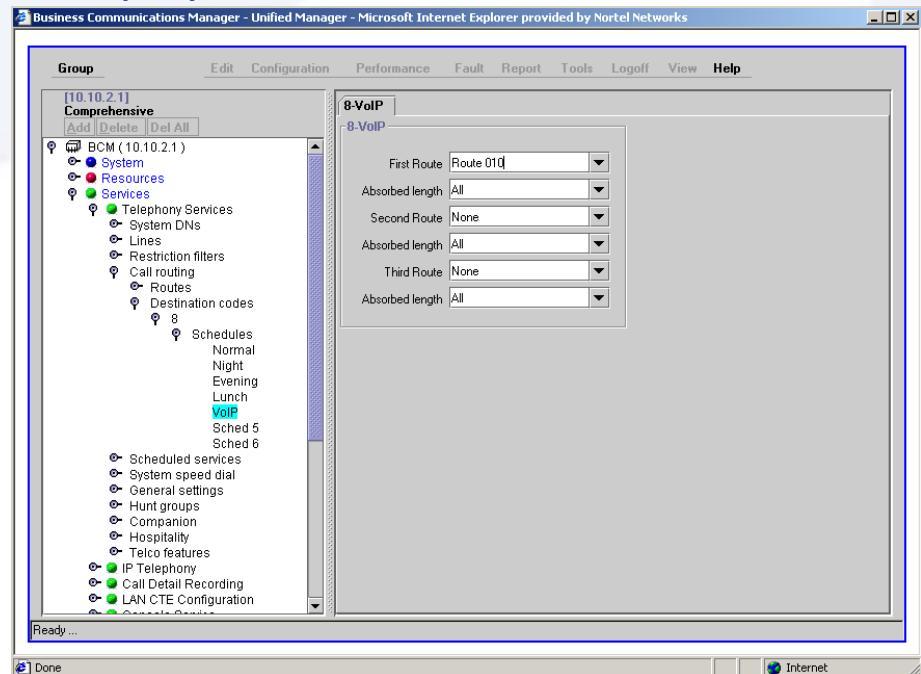
- With BCM 3.0 the destination code length has been increased from 7 to 12 digits.
Note: The maximum number of destination codes is unchanged and remains at 500.



Enhanced Call Routing

- Multiple overflow routes are now provided with BCM 3.0.
- In addition to the 1 overflow route we had previously we now have 2 more. This gives us 3 overflow routes. These are available in all modes but the normal service mode.
- Expensive warning tone and display will be invoked when there is an overflow to Normal mode. In the cases of overflow between routes within the same mode, Expensive warning tone and display will not be invoked.

Note: The same service mode programming as earlier BCM releases must be configured in order for this to function.



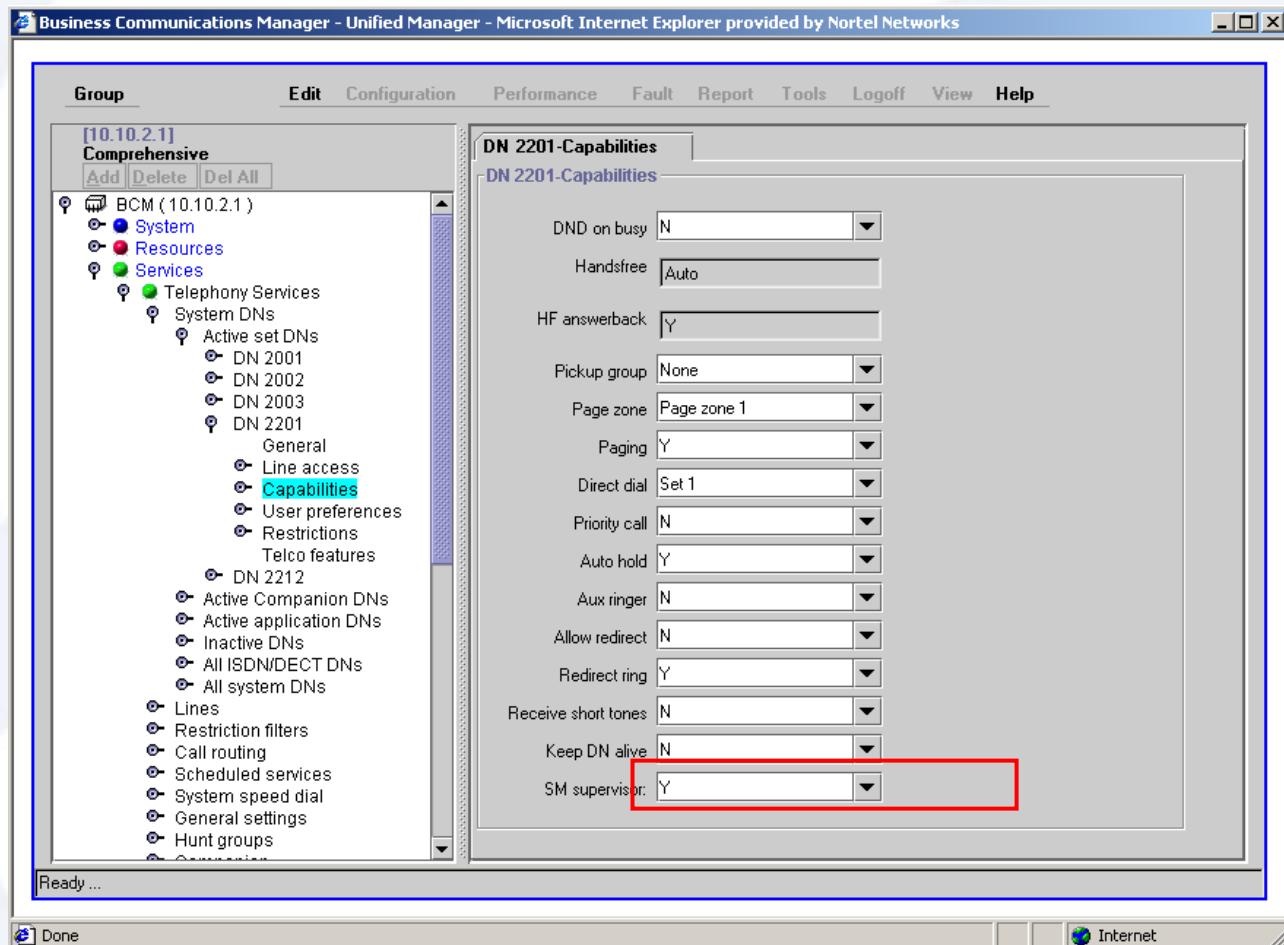
Silent Monitor for Hunt Groups

Introduction

- The Silent Monitoring feature allows a supervisor to monitor Hunt Group members on hunt group calls.
- There are some restrictions to this feature. They are:
 - There is a Maximum of 30 Silent Monitor sets for the system.
 - A supervisor can not monitor a set that has been programmed as "Silent Monitor set".
 - The Supervisor can not monitor a set if it is already being monitored.
 - The supervisor can only monitor incoming Hunt Group calls.
 - The supervisor can not monitor conference calls.
- The supervisor set must have the following programmed:
 - Hands free.
 - Silent Monitor set programmed as "Yes".
 - 2 line display phone.

Silent Monitor for Hunt Groups - Programming

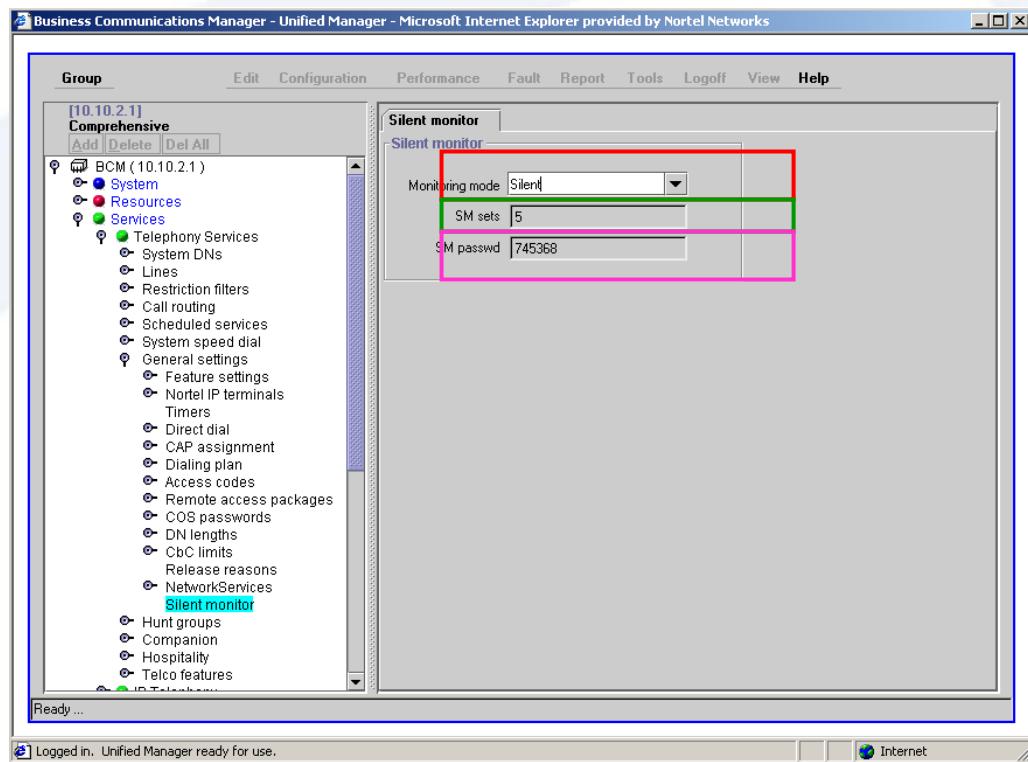
- The supervisor must have the “Silent Monitor supervisor” option set to “Yes” to be able to monitor Hunt Group members.



Silent Monitor for Hunt Groups - Programming

- If the “**Silent**” option is selected for the “**Monitoring Mode**”, the users will get no notification that the Supervisor is monitoring them. If the “**Non silent**” option is selected for the “**Monitoring Mode**”, the users will get audible tone that the Supervisor is monitoring them.
- The amount of supervisors that can perform Silent Monitoring is defined in the “**Silent Monitor Sets**” field.

• The default Silent Monitoring Password is “**745368**” “**SILENT**”.



Silent Monitor for Hunt Groups Demo

- The supervisor can invoke the Silent Monitor feature by pressing “Feature *550” and entering the Silent Monitoring Password of “745368”.
- Once the supervisor has been authenticated he or she will enter the DN to observe.
- The supervisor will get an “Idle” state if the set being monitored is not on a Hunt Group call. As soon as the set gets a Hunt Group call, the supervisor will start monitoring the set automatically as long as the supervisor stays in “Observe mode”.

Press
FEATURE *550
and
Enter the
Password



IP Telephony

Hot Desking

- Hot desking is a feature that allows the redirection of the signaling and calls from one IP set to another IP set connected to the same BCM.
- For example it allows a traveling user to map their i2050 to their i2004. So that any one calling the i2004 set is really calling the i2050.



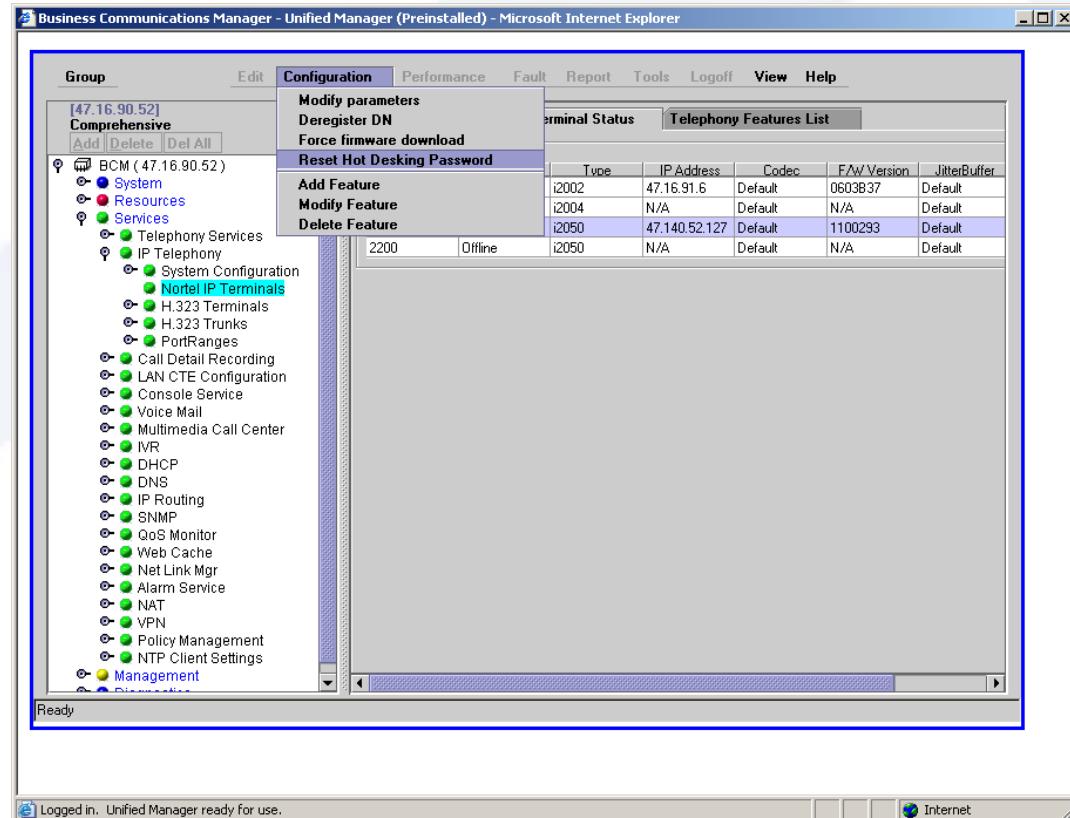
Hot Desking (cont'd)

- To use hot desking it can be accessed in a couple different ways. They are:
 - Feature *999 from the IP Set
 - Through the IP Set feature scrolling list of Feature * 900
- Hot desking is password protected for each user.
- When hot desking is invoked your IP Set buttons will also change to map to your redirected phone. If a user goes to an i2004 and hot desks an i2002 the i2004 will only then have 4 usable buttons instead of the 6 it normally has.
- Hot desking has a couple requirements to be used. They are:
 - In order to use hot desking an IP Client keycode is required for each set to be used.
 - Hot desking will only work with IP sets such as the i2002, i2004 and the i2050.
 - Hot desking will only work if it is allowed from the set.
 - Hot desking will only work to another ACTIVE IP Set DN.

Hot Desking (cont'd)

- If a user has lost or forgotten their hot desking password the administrator may go into Unified Manager and reset the password back to nothing.

This will require the user to set the password next time they use the feature.



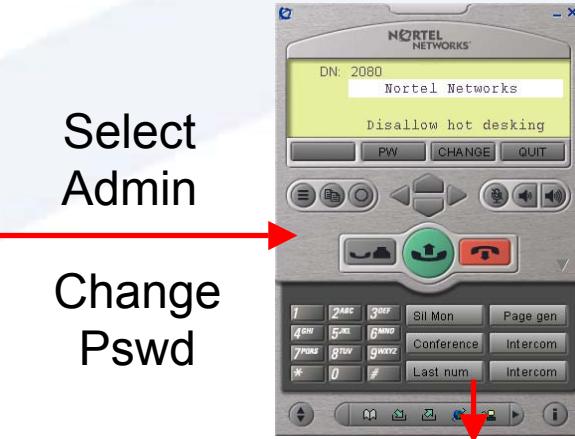
Hot Desking - Demo

- Invoked hot desking by pressing Feature * 999
- Select Admin and change your password
- Then Allow hot desking

Press
FEATURE *999 →



Select
Admin
Change
Pswd



Select
Change
to Allow



Hot Desking - Demo

- To perform the redirect press divert and enter the DN.



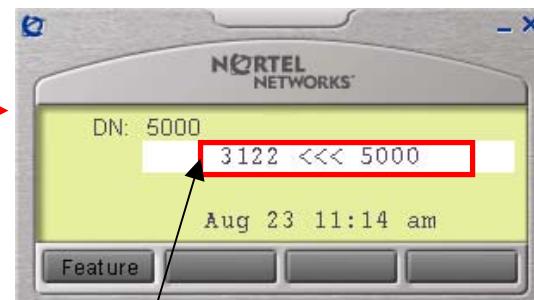
1. Press Divert



2. Enter the DN



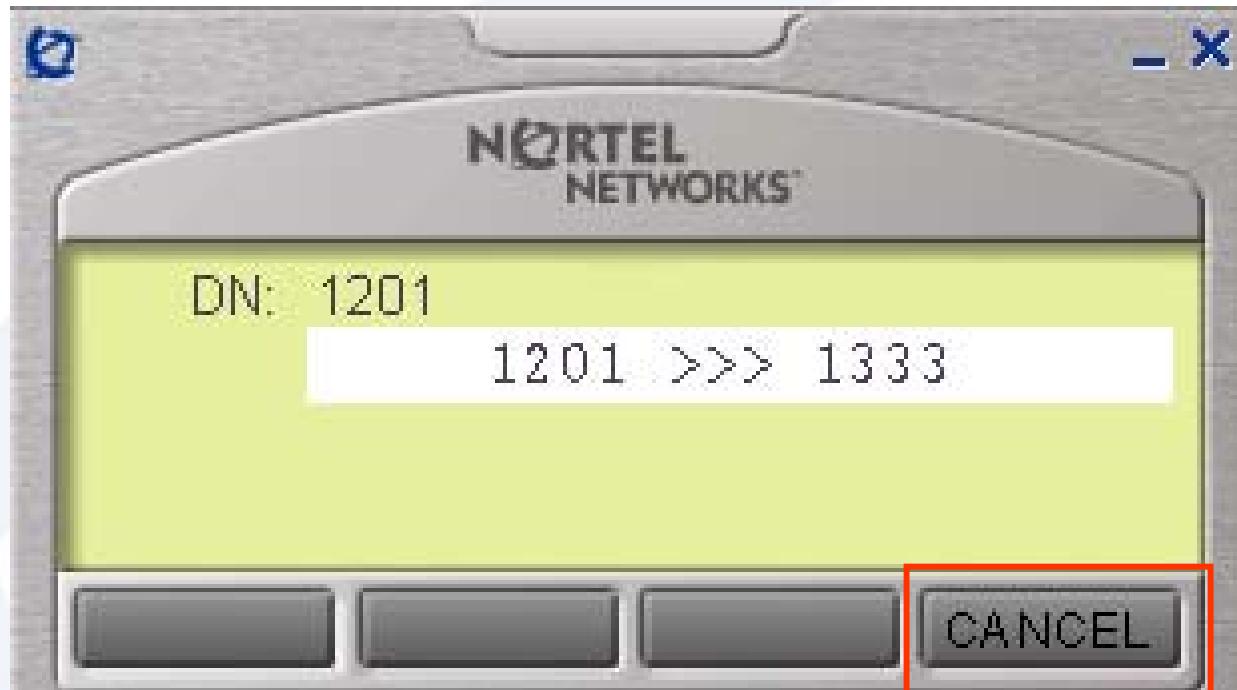
3. Enter the Password



Shows the DN Redirected

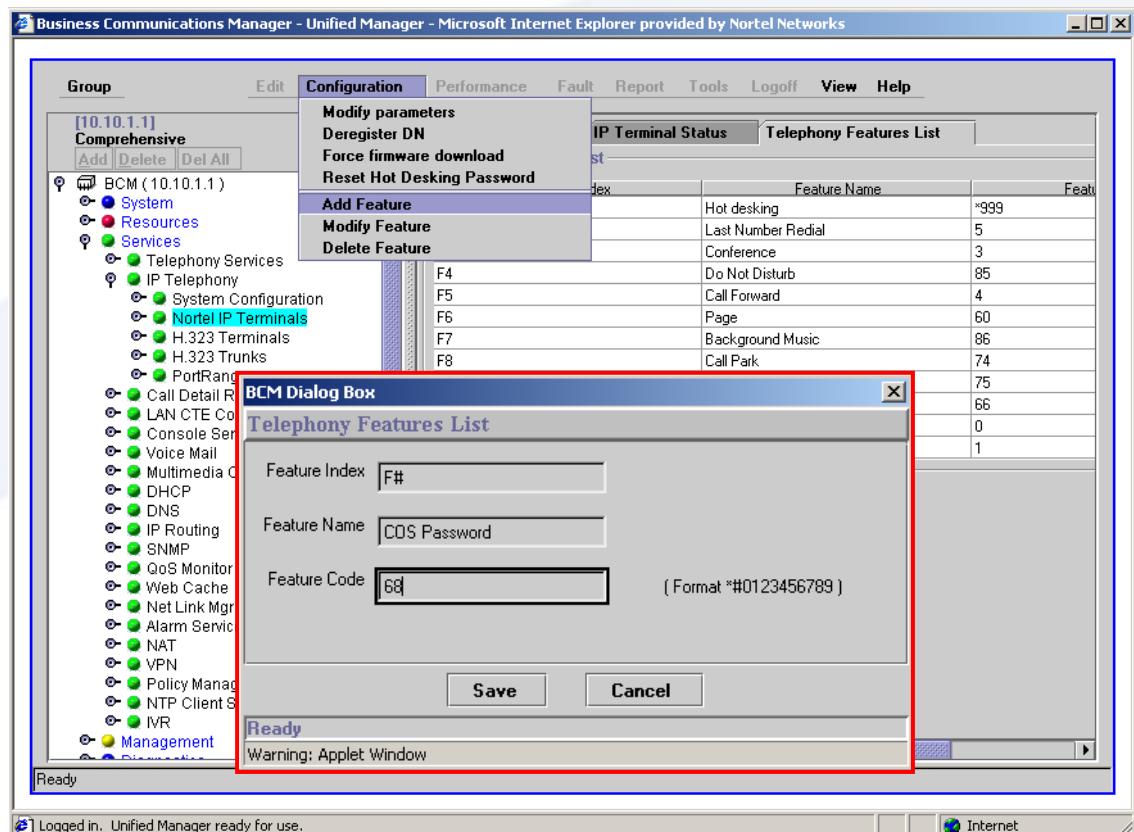
Hot Desking - Demo

- The IP Set's display that has been diverted will look like the following diagram. The Diverted set can at any time “**Cancel**” the Hot Desking feature.
- While the set is diverted the DN will still be active and all calls will follow forwarding to voice mail if programmed.



Feature Scrolling on IP Sets

- This feature allows an IP set to scroll and select a feature from a feature list. An administrator can use or modify this predefined feature list. A Maximum of 255 features can be added to the list.



Feature Scrolling for IP Sets

- Press the services key ( or ) on an IP Set and the feature list will appear.
- Feature *900 will launch the list.
- Scroll using the arrow keys one at a time or if you prefer the Page+/- will scroll 3 at a time.
- When you get to the feature you desire press select.

Note: Speed Dials can be in the list if you program FEATURE 0 followed by the speed dial bin number. Example: 012 would be speed dial 12.



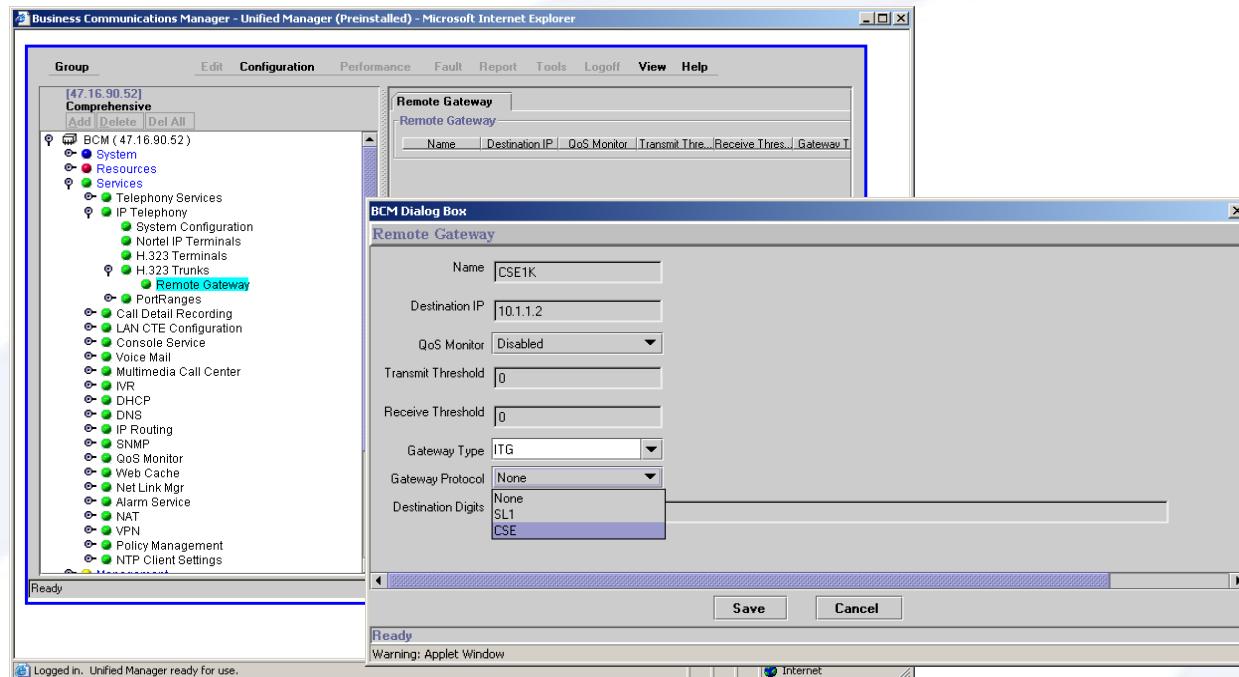
Extra Buttons on i200x sets

- With BCM 3.0 six more of the buttons on the i2002, i2004 and i2050 are programmable. They are:

UM Button #	Default Value	i2002/i2004	i2050
Button 7	Blank		
Button 8	Feature 981		
Button 9	Feature 980		
Button 10	Feature * 900		
Button 11	Blank		
Button 12	Blank		

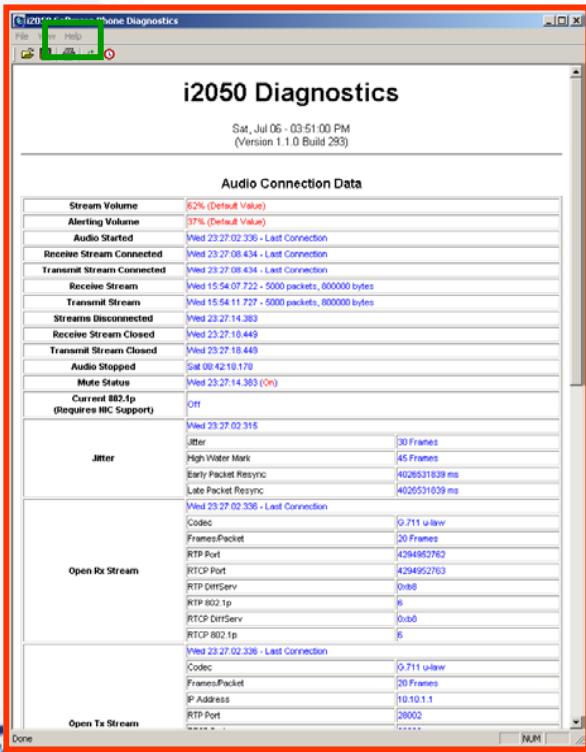
CSE1K 2.0 & IPT 3.0 (ITG) Compatibility

- BCM 3.0 delivers interoperability with the CSE 1000 Release 2 and IP Trunk 3.0 program on Meridian 1
- Support for IP Peer Networking and Gatekeeper registration.

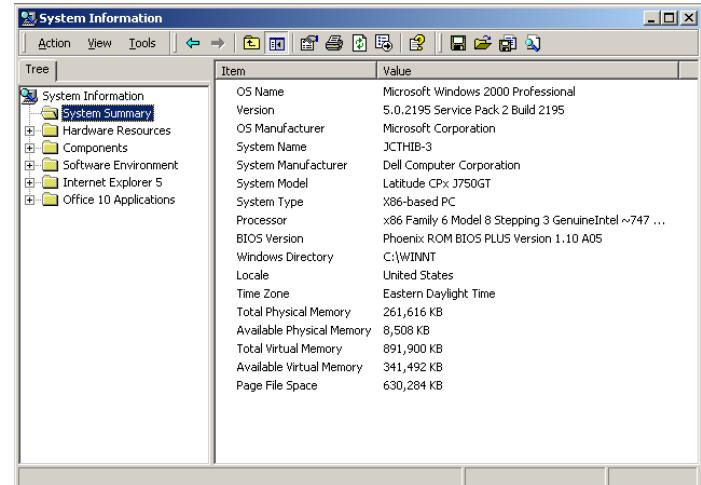


i2050 PC Diagnostic Tool

- The i2050 PC Diagnostic tool can be found on the installed drive under "Program files / Nortel Networks / i2050SoftwarePhone / i2050Diag.exe".
- This tools will help better diagnose any issues that might occur.



- From The "Help" Menu, click on "About i2050 Diagnostics" followed by "System Info" to get more diagnostic information about the PC.



Symbol QCP Set Support

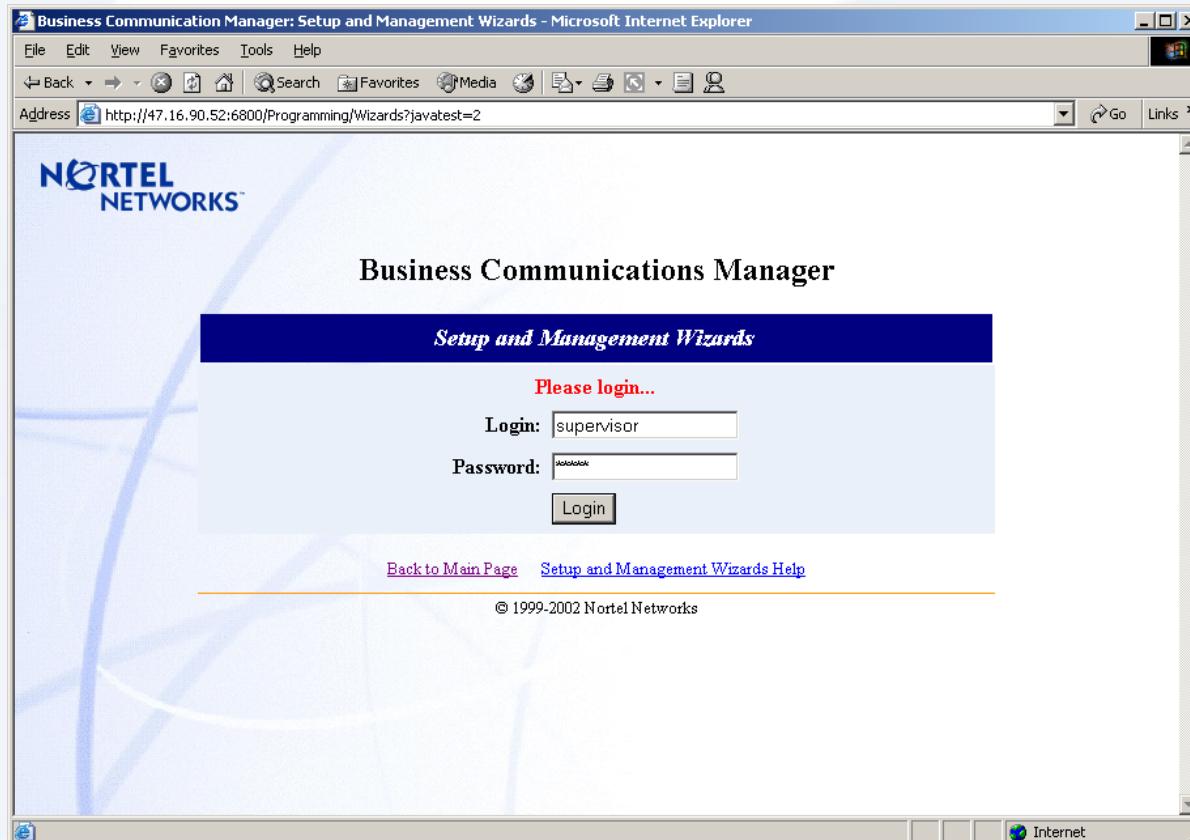
- BCM 3.0 delivers full support for the new Symbol QCP handset.
- The new handset has no exterior antenna and easier to use navigation keys.



Management

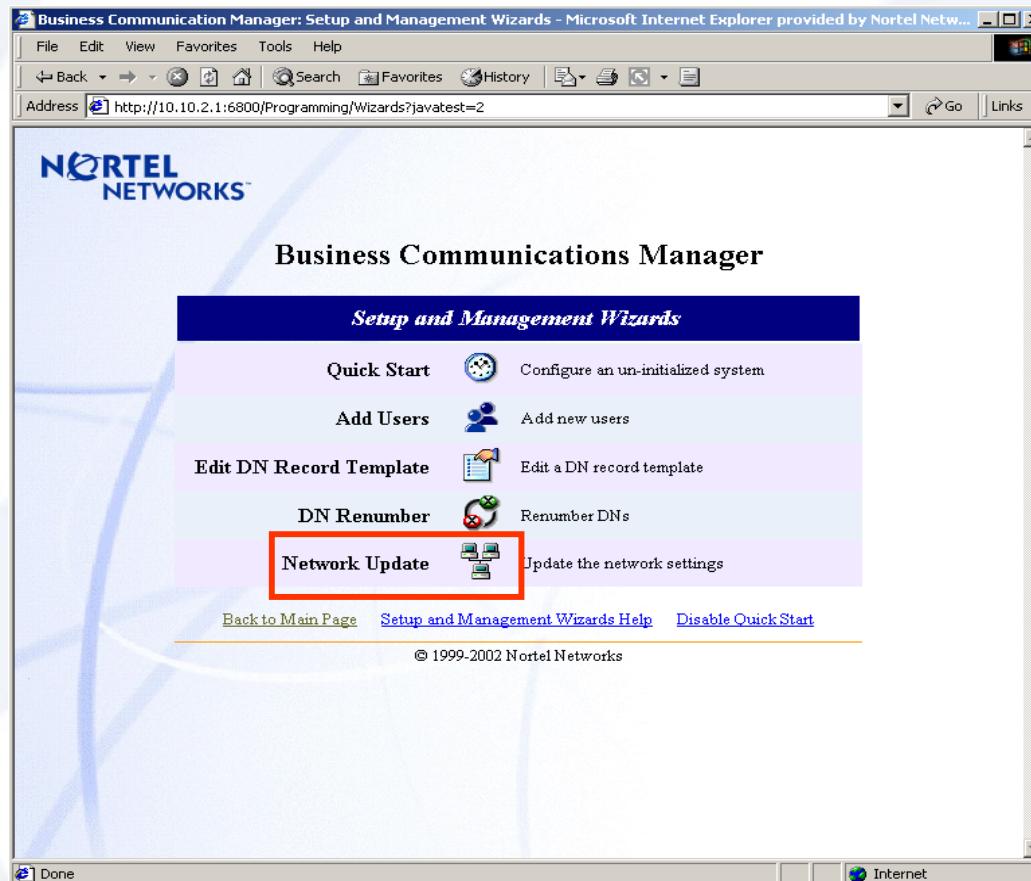
Unified Log In screen for Wizards

- The wizards now have a single log in screen to access all Wizards. This alleviates having to login multiple times when accessing more than 1 wizard.



Network Update Wizard

- The “Network Update”  wizard allows the administrator to change just the network settings.



Network Update Wizard - Programming

- Network Settings.

Network Update Wizard - Microsoft Internet Explorer provided by Nortel Networks

NORTEL NETWORKS™

Network Settings

General

System Name

LAN 1

IPAddress

SubNet Mask

LAN 2

IPAddress

SubNet Mask

Default Next Hop Router

Next Hop on Primary Link

DNS

IP Domain

Primary(& Sec.) Server IP Addr [sep. by space]

Buttons: Next >> Cancel

Status Bar: Done Internet

User Wizard - Introduction

- Add Users Wizard. 
- Allows the programming of set “Buttons”.

Add Users Wizard - Microsoft Internet Explorer provided by Nortel Networks

NORTEL NETWORKS™

User Preferences

Set Model	M7208/T7208
Call Log Options	No one answered
Dialing Options	Standard dial
Language	English
Contrast	1
Ring Type	1
Perform Button Programming?	Yes

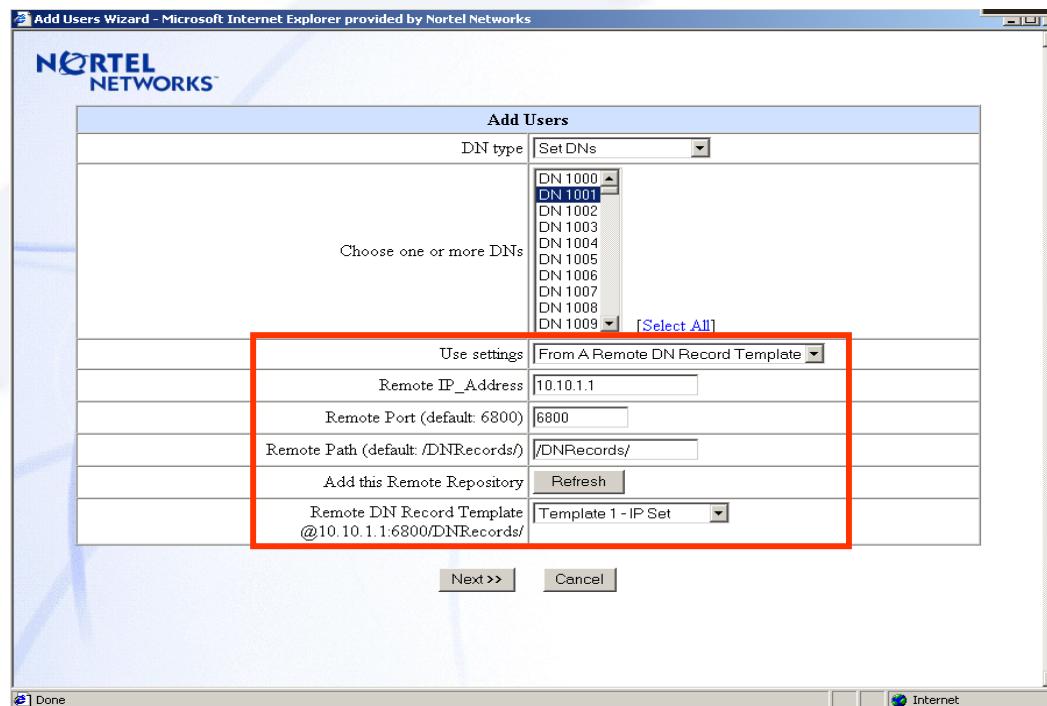
Button Programming - M7208/T7208

Blank	Button 01
Blank	Button 02
Blank	Button 03
Blank	Button 04
Blank	Button 05
Intercom	Button 06
Intercom	Button 07
Handsfree	Button 08

Done Internet

Network Loaded Template - Introduction

- The “Network Loaded Templates” feature will remove the restriction of having to re-enter the DN record template configurations on each new BCM. It will allow an enterprise to create and manage a single template repository, and for those templates to be used from “Add User”  wizards that are running on remote BCMs.



Desktop Assistant Pro Admin Edition - Introduction

- Desktop Assistant Pro Admin Edition will allow an administrator to have the same functionality as Desktop Assistant Pro such as the programming and printing of keys plus the ability to connect to another BCM and other sets.
- **LAN CTE keycode is required on all of the BCM's that Desktop Assistant Pro Admin Edition connects to.**
- **Install the Desktop Assistant Pro Admin Edition application from the BCM Install Client web page**



The screenshot shows a Microsoft Internet Explorer window with the title bar "Download Client Applications - Microsoft Internet Explorer". The address bar contains the URL "http://10.10.1.1:6800/Clients/default.html". The main content area displays the "Business Communications Manager" interface. At the top right, it says "Your Location: BCM / Download Client Applications" and "Business Communications Manager Computer Telephony Integration". Below this, there is a brief description of CTI (Computer Telephony Integration) and its benefits. On the left side, there is a navigation menu with several categories: "Call Center Applications", "Voice Mail Applications", "IVR Applications", "Desktop Applications", "Toolkits", and "Developer Program". A red rectangular box highlights the "Administrative Tools" section at the bottom of the left sidebar, which lists "Desktop Assistant Pro AE" and "BCM Manager".

Desktop Assistant Pro Admin Edition - Programming

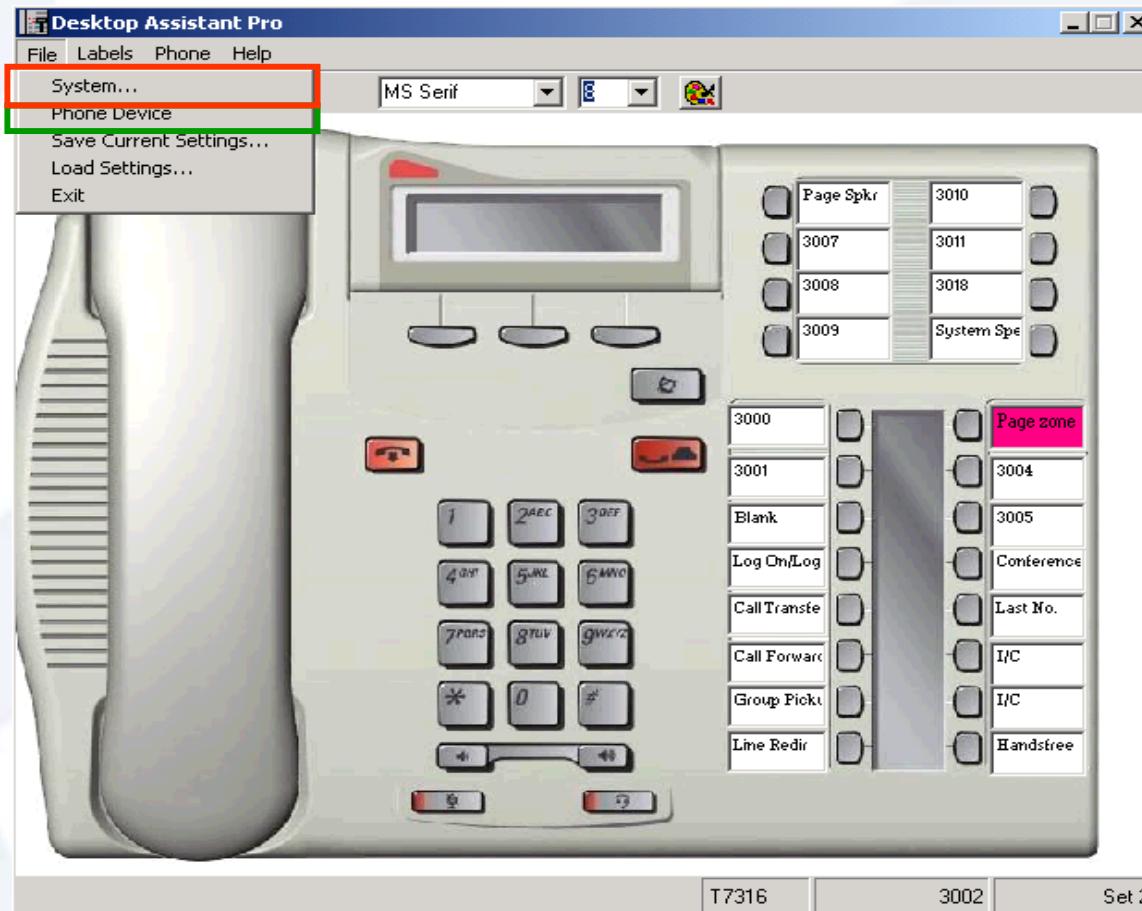
- Enter the BCM's IP address or Machine name and authentication information and the set to program.



Simply
Right click
on a button
to program
or label

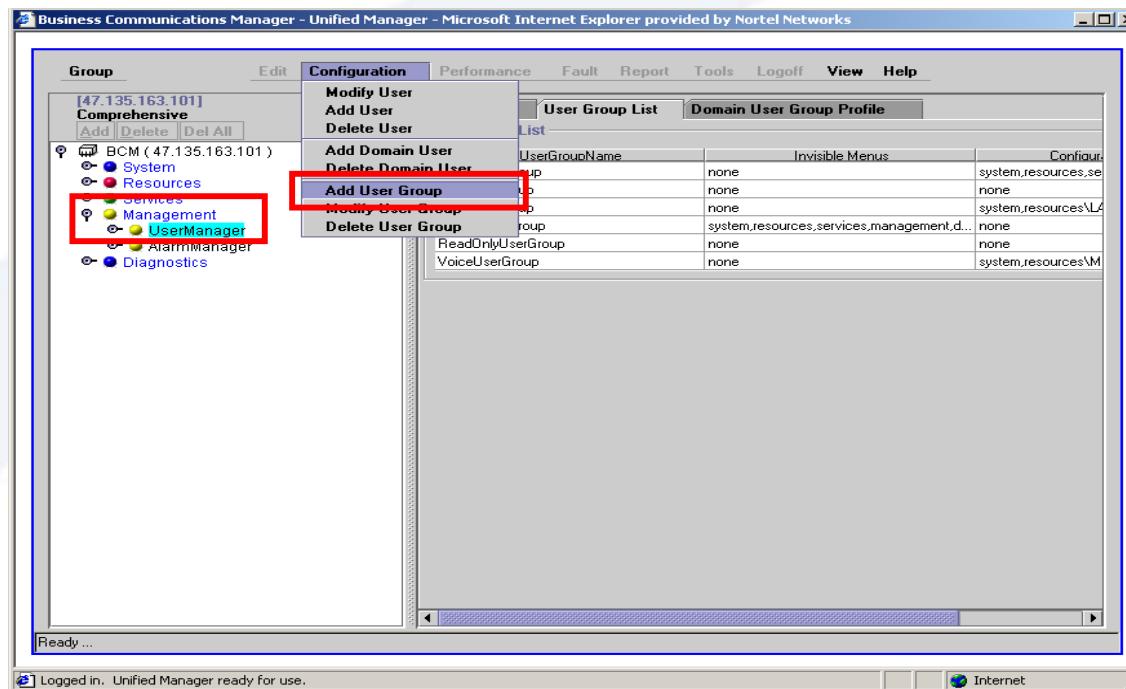
Desktop Assistant Pro Admin Edition - Programming

- Select “System” or “Phone Device” to select an other BCM or a Phone to program.



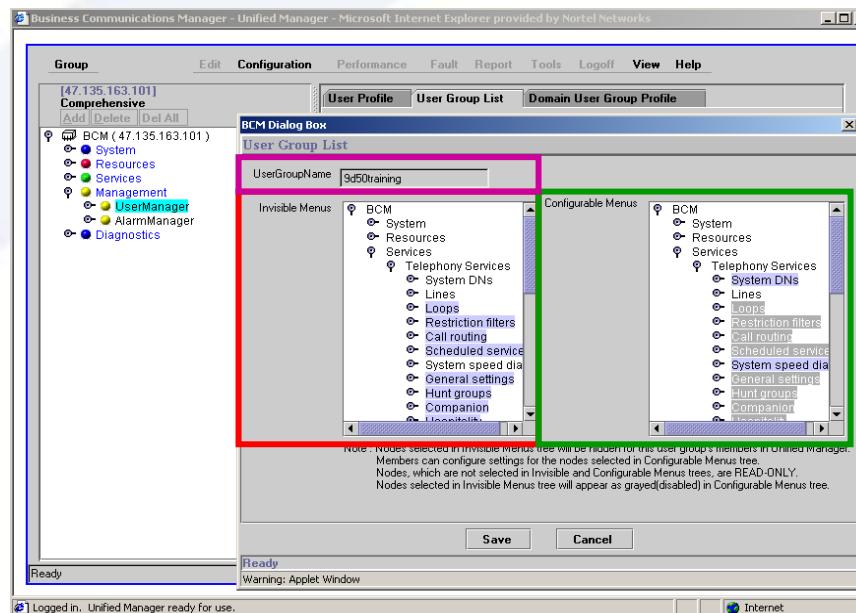
Multi-Level UM Admin Introduction

- The Multi Level Unified Manager Administration allows the Administrator to set different administration levels for users.
- This is done by building groups with specified security permissions and then assigning users to those groups.
- To Program a new User Group:



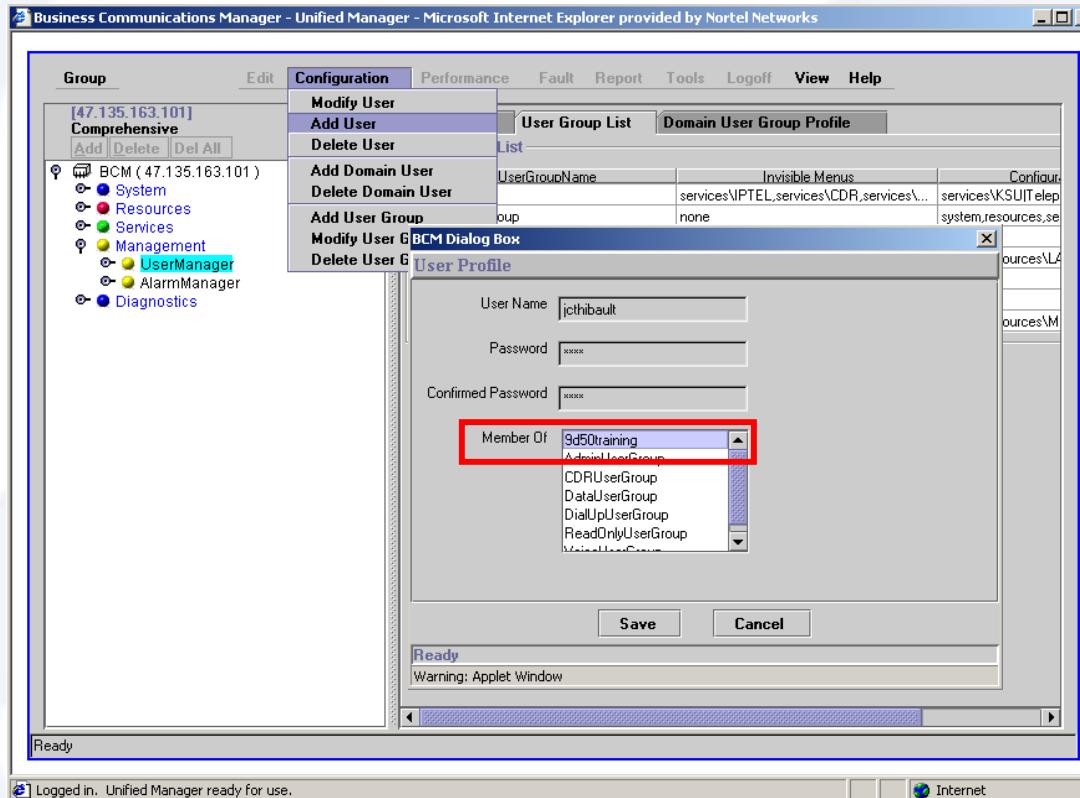
Multi-Level UM Admin (cont'd)

- All of the items that are selected under the “**Invisible Menus**” will not be seen by the user.
- All of the items that are selected under the “**Configurable Menus**” can be modified by the user.
- In this example any users belonging to this “**User Group**” will only be able to see “Systems DNs, Lines and System speed dials”. But only be able to modify “System DNs and System speed dials”.



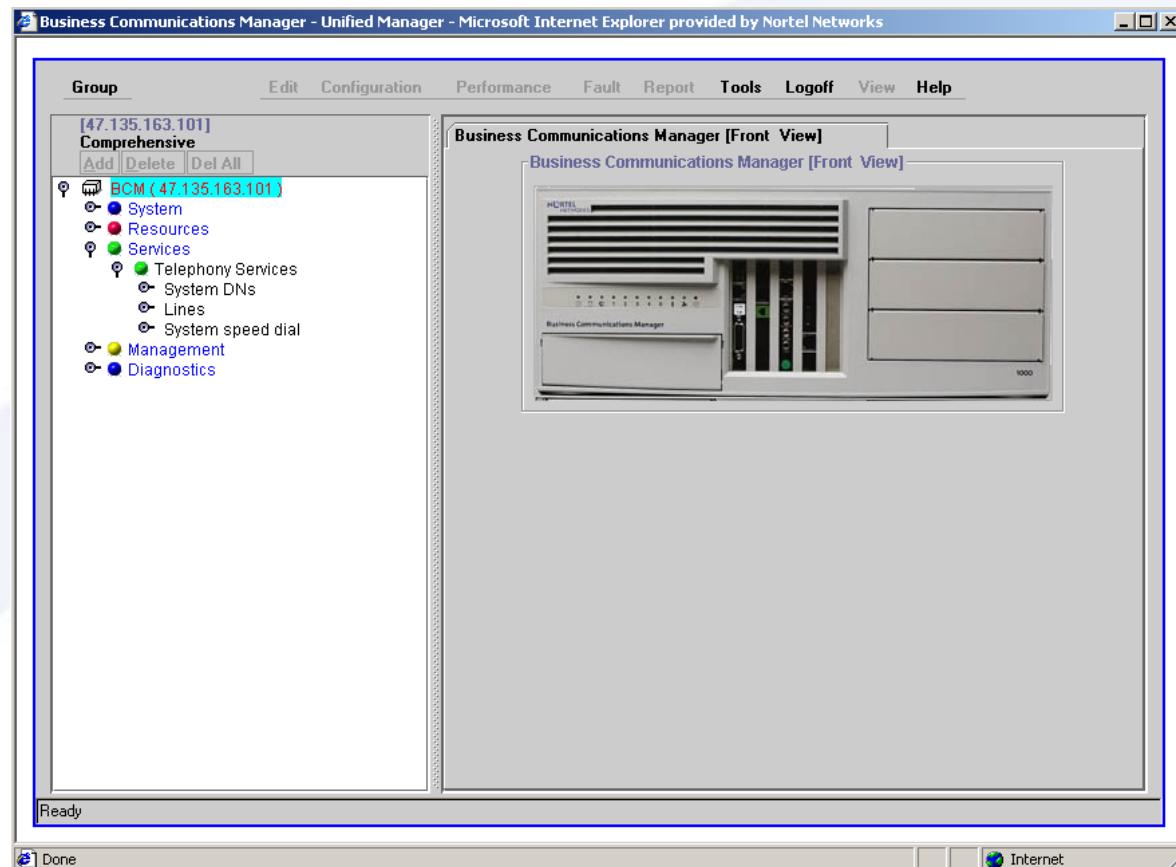
Multi-Level UM Admin – (cont'd)

- Create a user that will be a “Member of” the user group previously created.



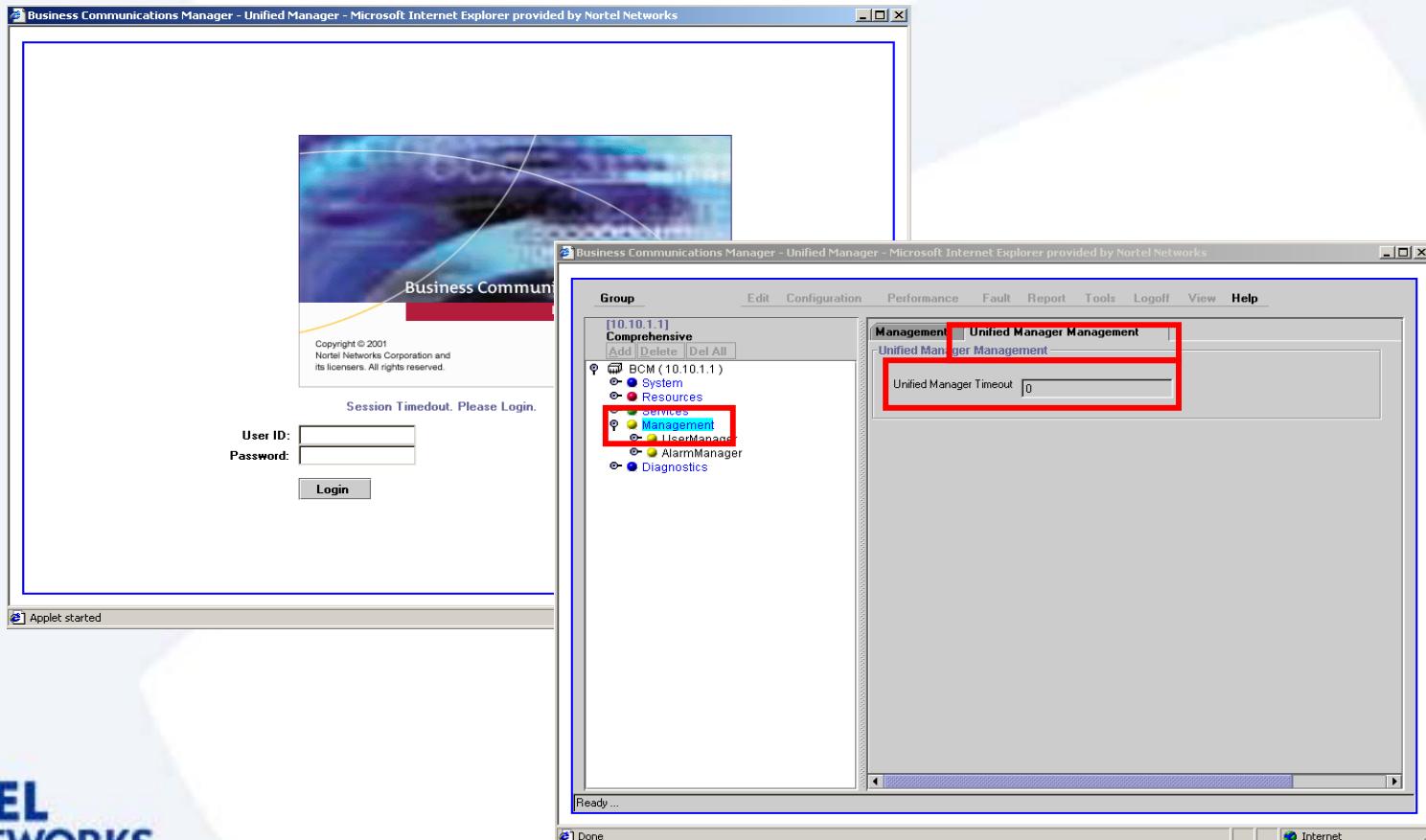
Multi-Level UM Admin (cont'd)

- Here is what the newly created user will see. The user will not be able to modify anything under "Lines".



Unified Manager Timeout

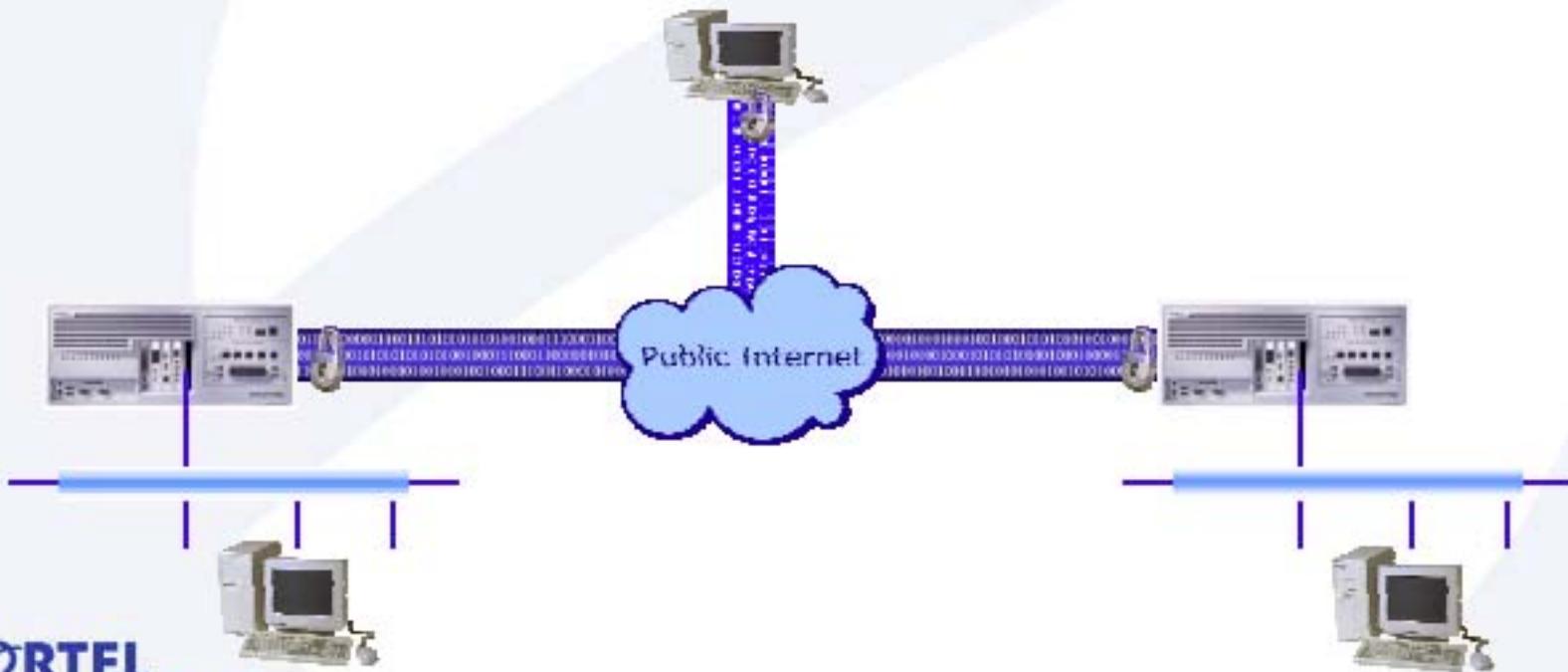
- Unified Manager will timeout after X minutes of no activity defined in the “Unified Manager Management”.
- The default is 0 meaning it will not time out.



Data Features

IPSec Client Support Introduction

- BCM 2.5 only supported IP Sec Branch Office Mode (server-to-server) connections.
- The addition of IPSec Client Termination support to the BCM 3.0 will provide the ability for the Contivity VPN Client to connect to the BCM from a remote PC giving up to 128 bit encrypted secure access to a private network from the remote PC.



IPSec Client Support Requirements

- The “IP Sec keycode” is required on the BCM.
- Enable “IP Sec”.
- Ensure the desired encryption you would like to use is checked.

The image displays two side-by-side screenshots of the Business Communications Manager - Unified Manager interface, specifically for managing an IPSec VPN service.

Screenshot 1: Licensing Setting

This screenshot shows the "Applied Keycodes" tab. A single keycode entry is listed:

Keycode	Functionality
12159808-8094989-35818409	IPSec License Enabled

Screenshot 2: Global Settings

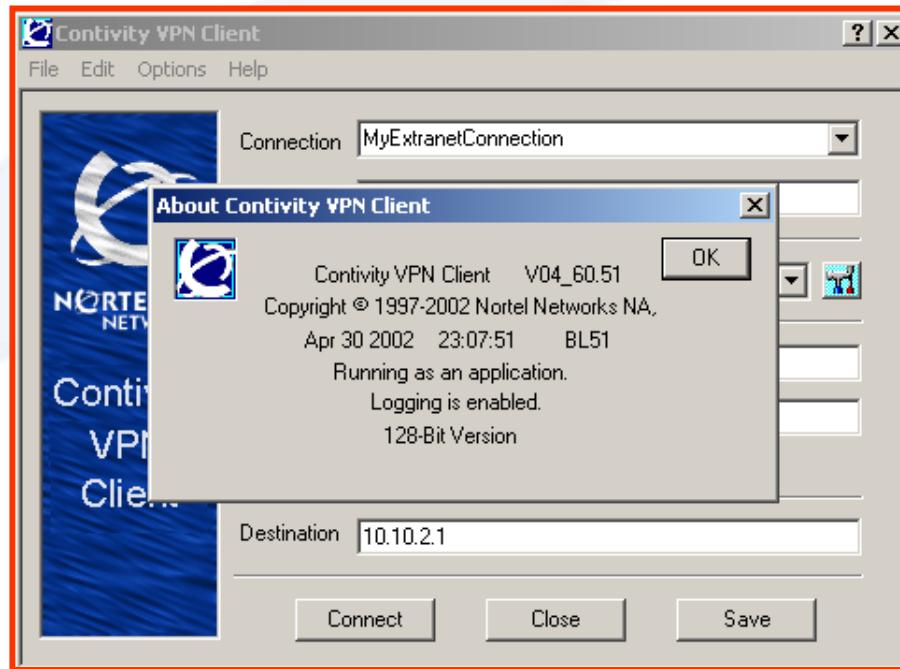
This screenshot shows the "Global Settings" tab for the "IPSec VPN Service". The "Encryption" section contains several checkboxes, all of which are checked:

- ESP-3DES-GHA
- ESP-3DES-MD5
- ESP-DES56-GHA
- ESP-DES56-MD5
- ESP-DES40-GHA
- ESP-DES40-MD5
- AH-Authentication_Only(GHAI)
- AH-Authentication_Only(MD5)

The "Status" dropdown menu is set to "Enabled".

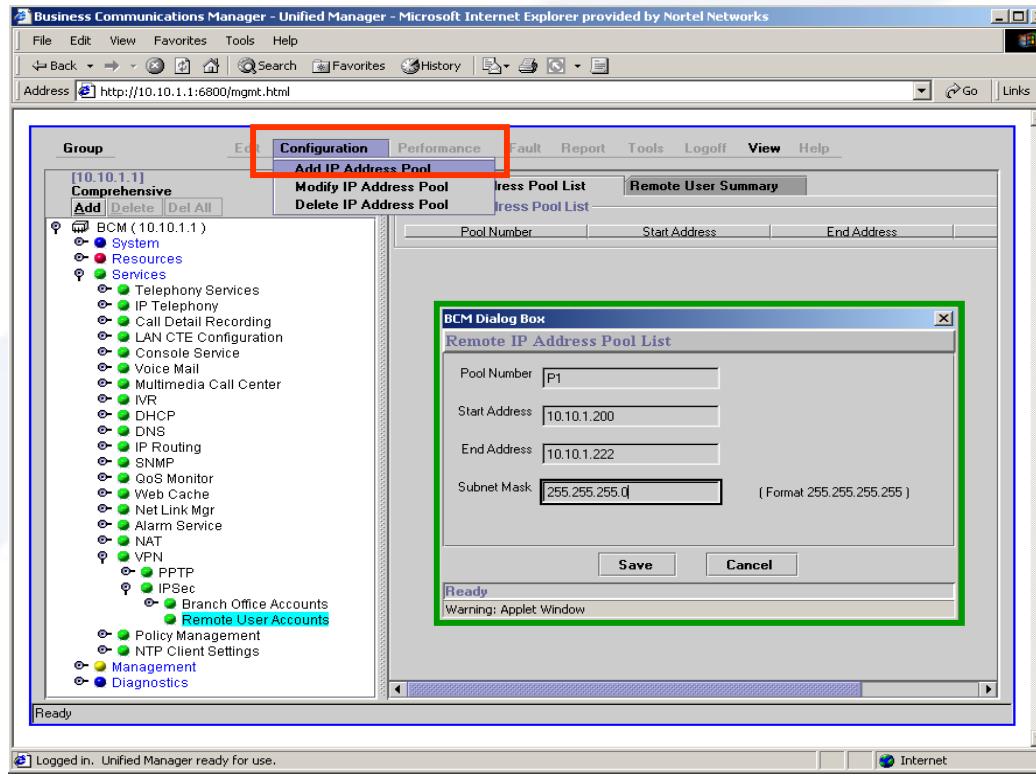
IPSec Client Support Installation

- Go to the Nortel Networks web page and download the Contivity VPN client software. This software is not distributed on the BCM's hard drive due to export/security issues.
- Install the “Contivity VPN Client software” on the client PC’s.



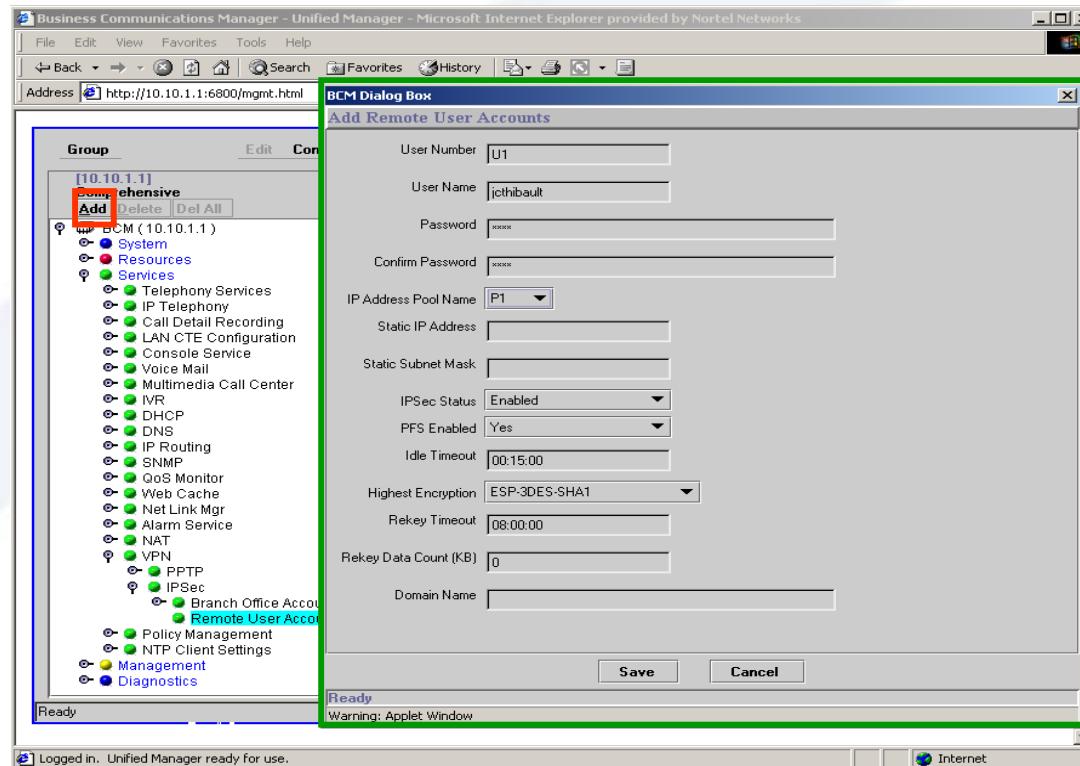
IPSec Client Support Programming

- A Contivity client tunneled into the BCM can either have a Static IP address or an address from the “**Remote IP Address Pool**”.
- Program a “**Remote IP address Pool**”.



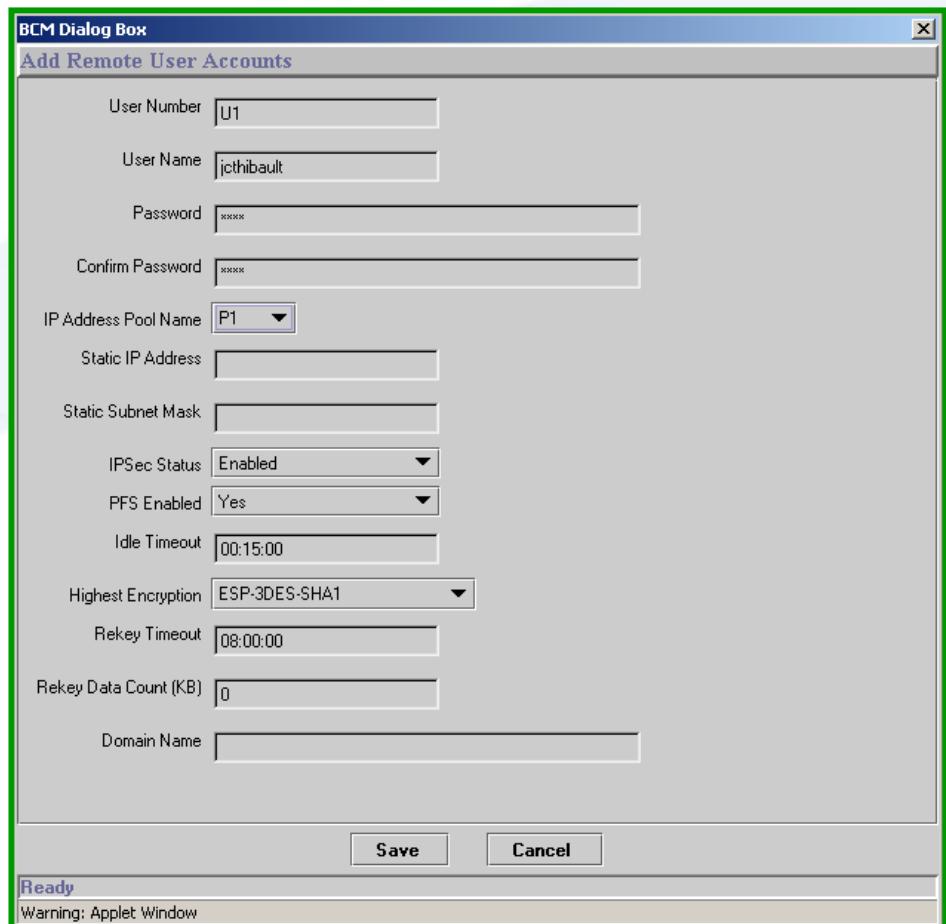
IPSec Client Support Programming

- Click on “Add” to create a “Remote User Accounts” for the IP Sec Clients.
Note: When adding or making changes to any remote user accounts the IPSec must be disabled on the BCM.



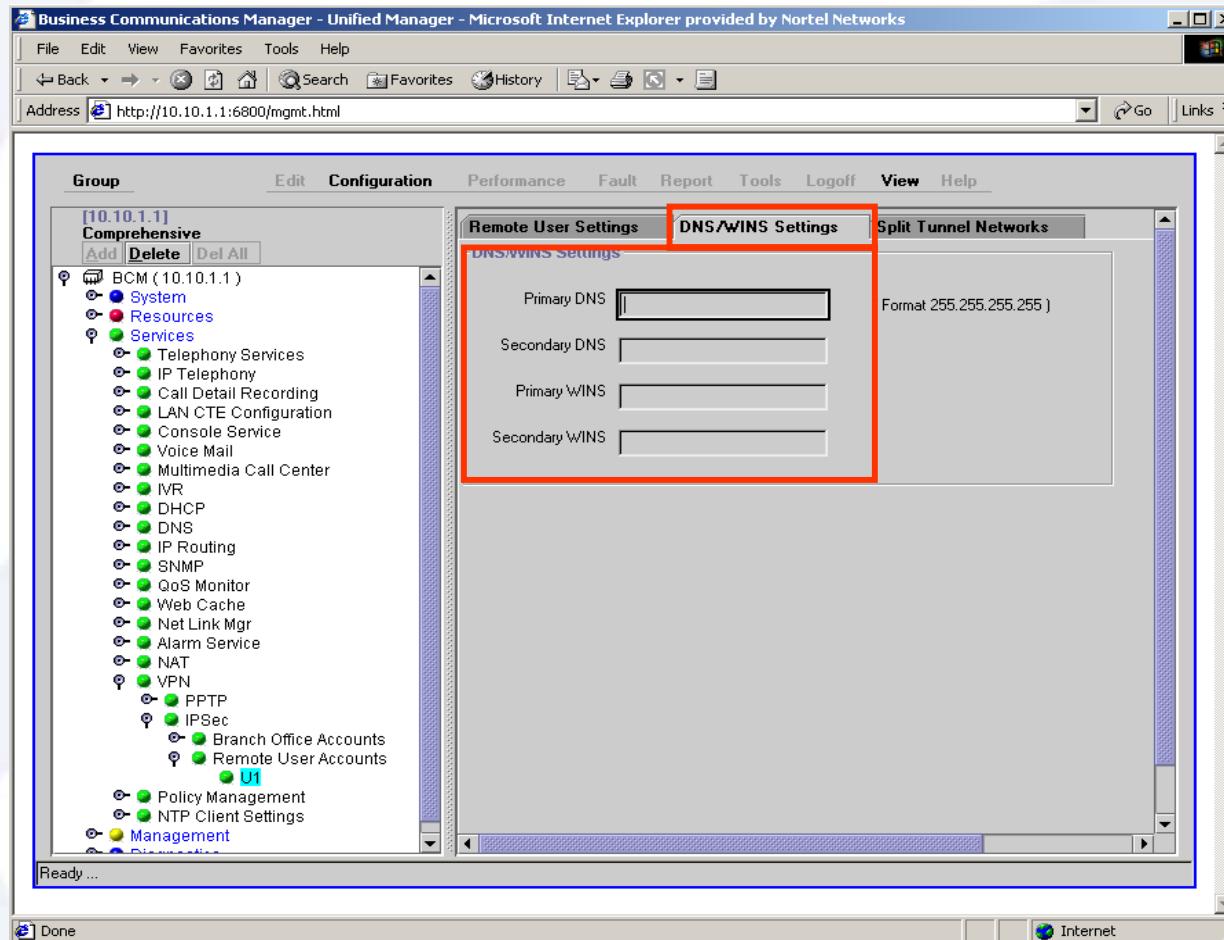
IPSec Client Support Programming

- The “Remote User Accounts” consist of :
 - User Name
 - Password
 - IP Address Pool Name or static IP Address and subnet Mask
 - IP Sec Status
 - PFS Enables
 - Idle Timeout
 - Highest Encryption
 - Rekey timeout
 - Rekey Data count
 - Domain name



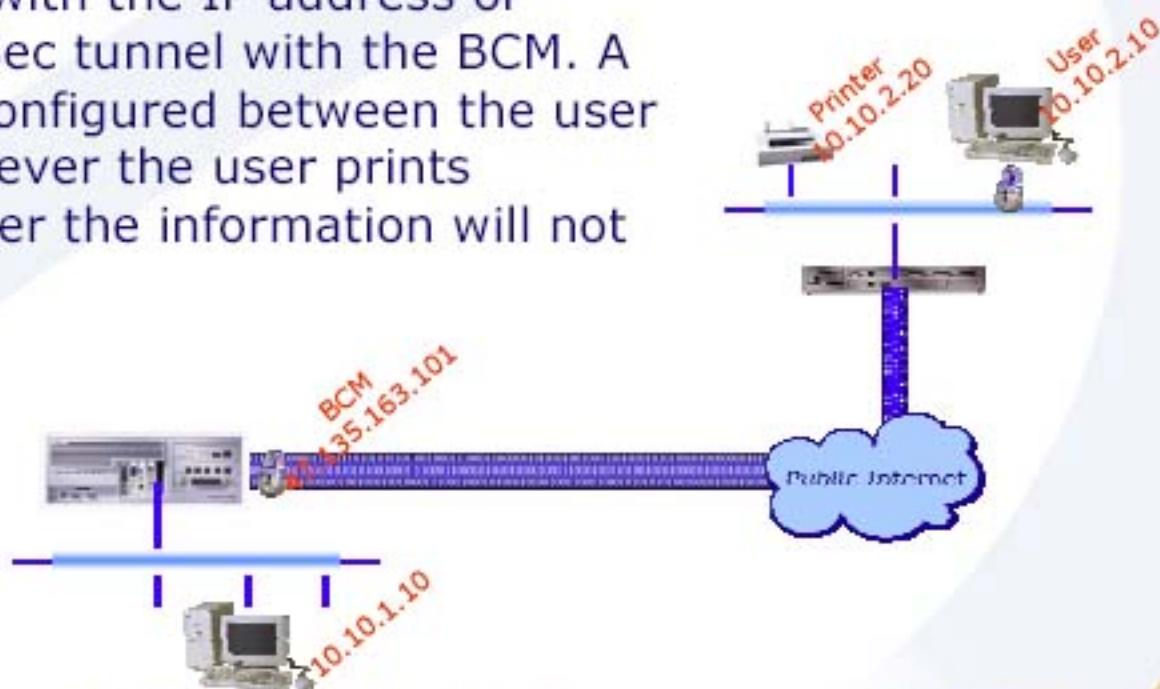
IPSec Client Support Programming

- “DNS / WINS Settings” tab.



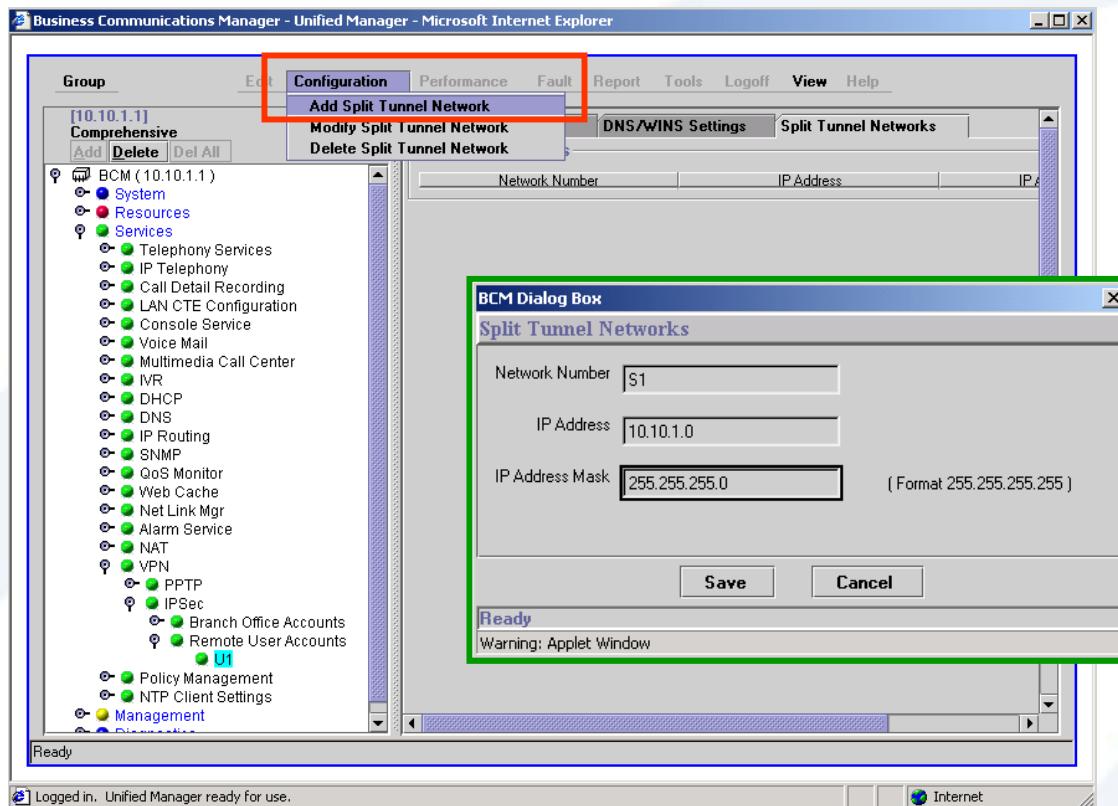
IPSec Client Support – Programming

- Split tunneling is when a VPN client can connect to both secure sites (via VPN) and non-secure sites, without having to connect or disconnect the VPN connection. The client can determine whether to send the information over the encrypted path, or to send it via the non-encrypted path.
- For example. The PC with the IP address of 10.10.2.10 has an IP Sec tunnel with the BCM. A split tunnel has been configured between the user and the printer. When ever the user prints documents to the printer the information will not be tunneled.



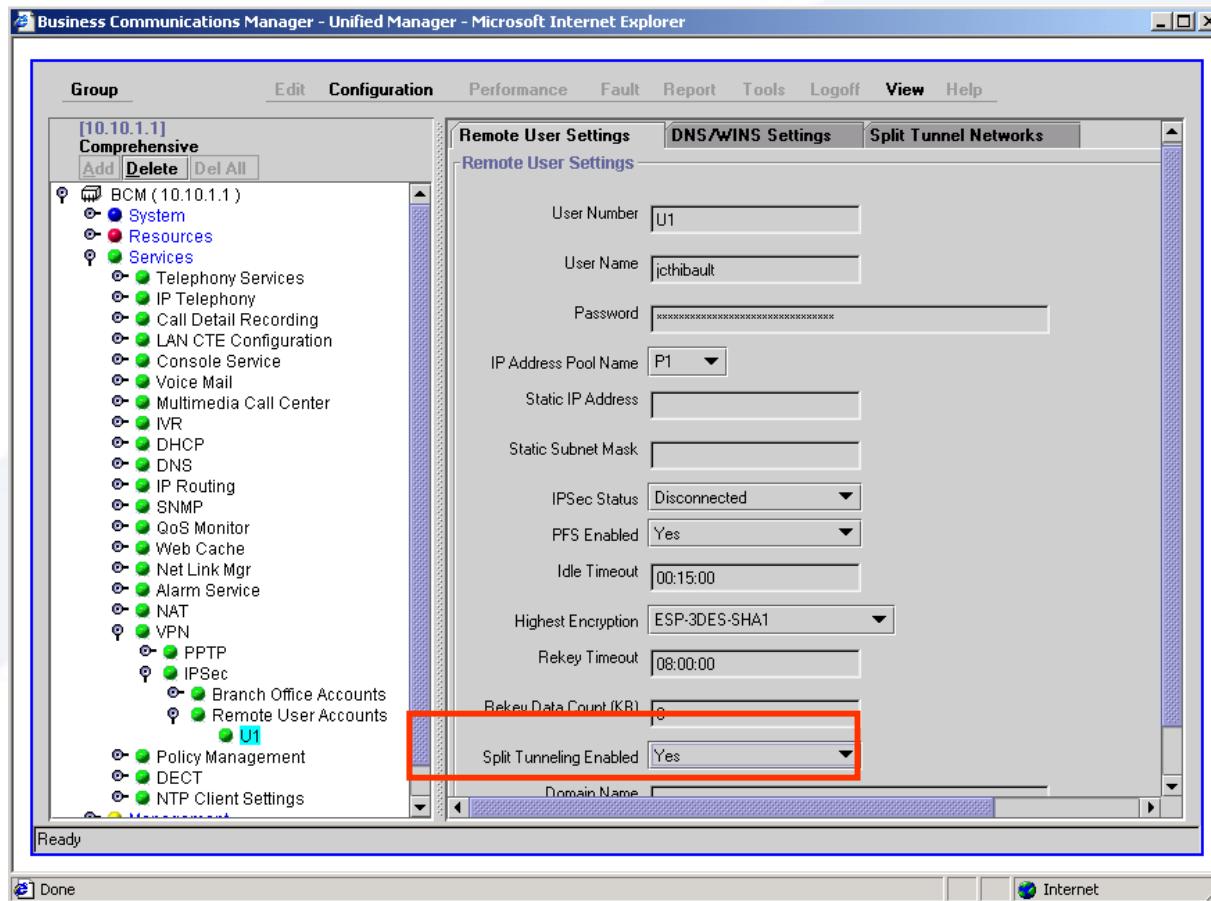
IPSec Client Support Programming

- When adding a split tunnel this is the network traffic that will be sent through the IPSec tunnel.
- “Add a Split Tunnel Network” if required.



IPSec Client Support – Programming

- A split tunnel network must be created before the option of “Split Tunneling” can be enabled.

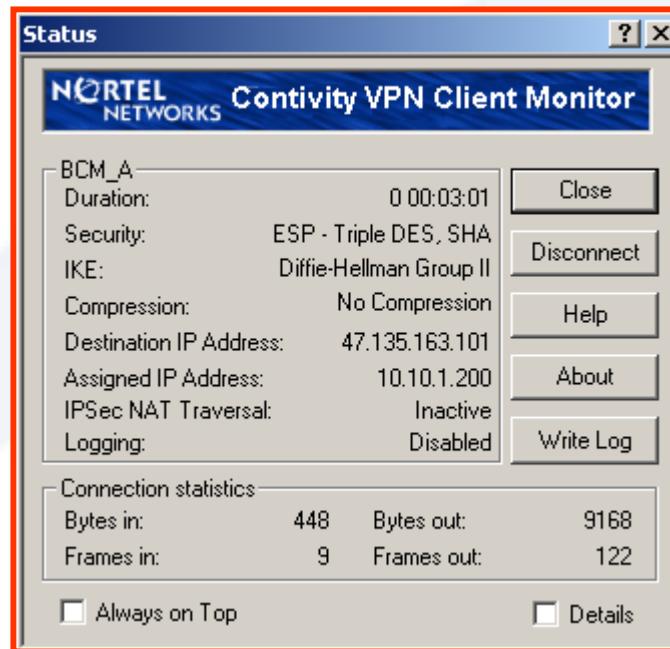


IPSec Client – Contivity Client Features not Supported

- The following Contivity VPN Features will not be supported by BCM:
 - Forced Logoff.
 - Client Auto Connect.
 - Banner/Display Banner.
 - Client Screen Saver Password required
 - Client Screen Saver Activation time
 - Allow Password storage on Client
 - Client Policy
 - Support for third Party clients.

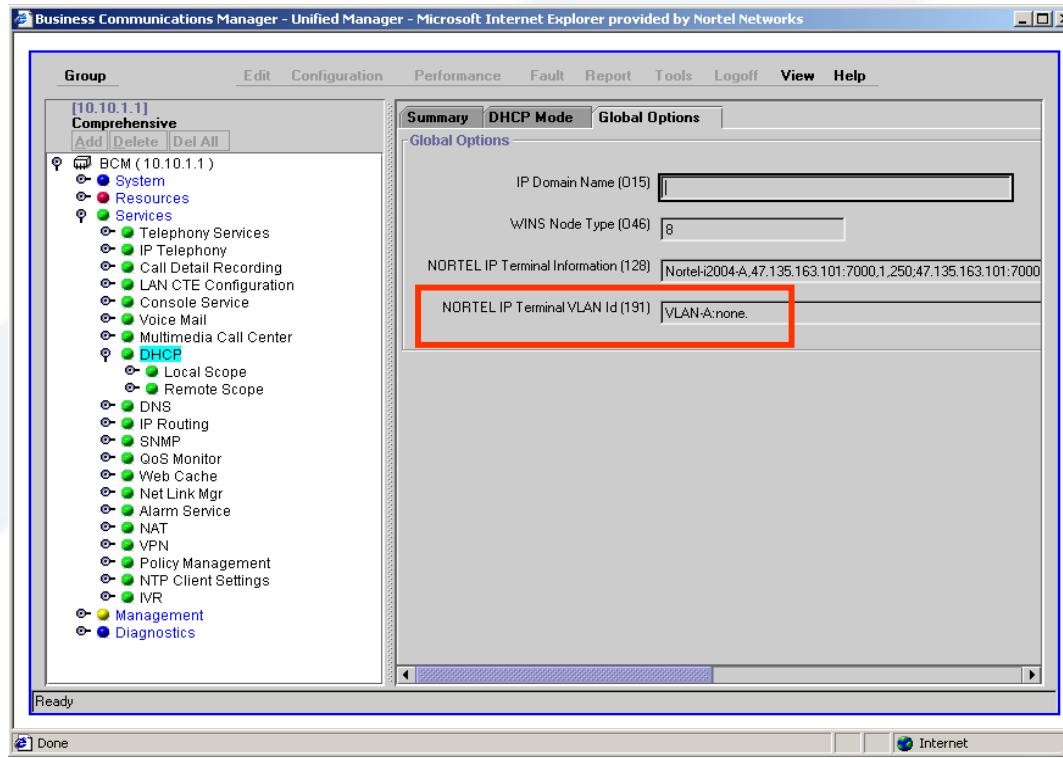
IPSec Client - Results

- When the client connects successfully the status can be viewed on the Client PC. This is an example of a successful IPSec connection:



DHCP VLAN for IP Terminals

- The DHCP server can be configured to send the IP sets a “**VLAN Id**”.
- This can be used to separate voice traffic and standard data traffic on a LAN.



QoS Monitor Enhancements - Status

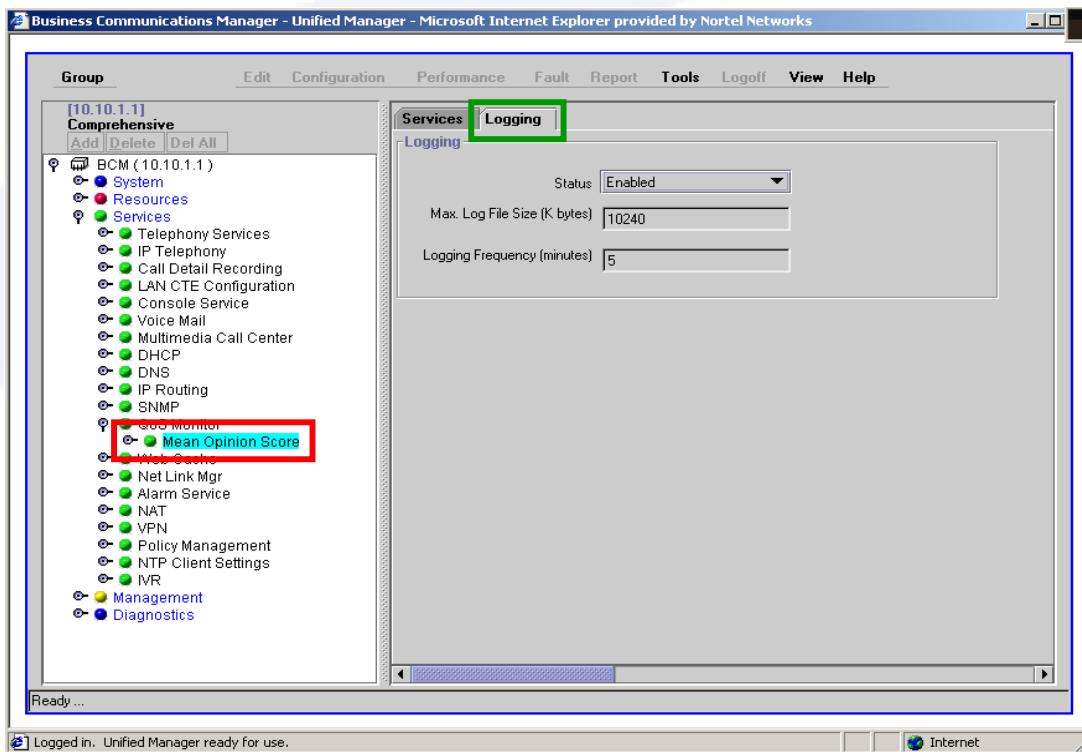
- QoS Monitor will indicate a Good, Fair or Poor status to further help people determine the MOS values.

The screenshot shows a Microsoft Internet Explorer window for the Business Communications Manager - Unified Manager. The title bar reads "Business Communications Manager - Unified Manager - Microsoft Internet Explorer provided by Nortel Networks". The menu bar includes Group, Edit, Configuration, Performance, Fault, Report, Tools, Logoff, View, and Help. The main window has two panes. The left pane, titled "[10.10.1.1] Comprehensive", contains a tree view of system components under a group named "Comprehensive". The "Services" node is expanded, showing various services like Telephony Services, IP Telephony, Call Detail Recording, LAN CTE Configuration, etc., and the "QoS Monitor" node, which is further expanded to show "Mean Opinion Score". The right pane is titled "Services" and displays a table of service configurations. The table has columns for Name, Destination IP, QoS Monitor, QoS Indicator, and G.711-aLa. Two entries are listed: BCM_A (Destination IP 47.135.163.101, QoS Monitor Enabled, QoS Indicator Fair, G.711-aLa 2.272561) and BCM_B (Destination IP 47.135.163.102, QoS Monitor Enabled, QoS Indicator Poor, G.711-aLa 0.000000). The "QoS Indicator" column for both entries is highlighted with a red border. At the bottom of the window, there is a status bar with "Ready ...", a "Done" button, and an "Internet" icon.

Name	Destination IP	QoS Monitor	QoS Indicator	G.711-aLa
BCM_A	47.135.163.101	Enabled	Fair	2.272561
BCM_B	47.135.163.102	Enabled	Poor	0.000000

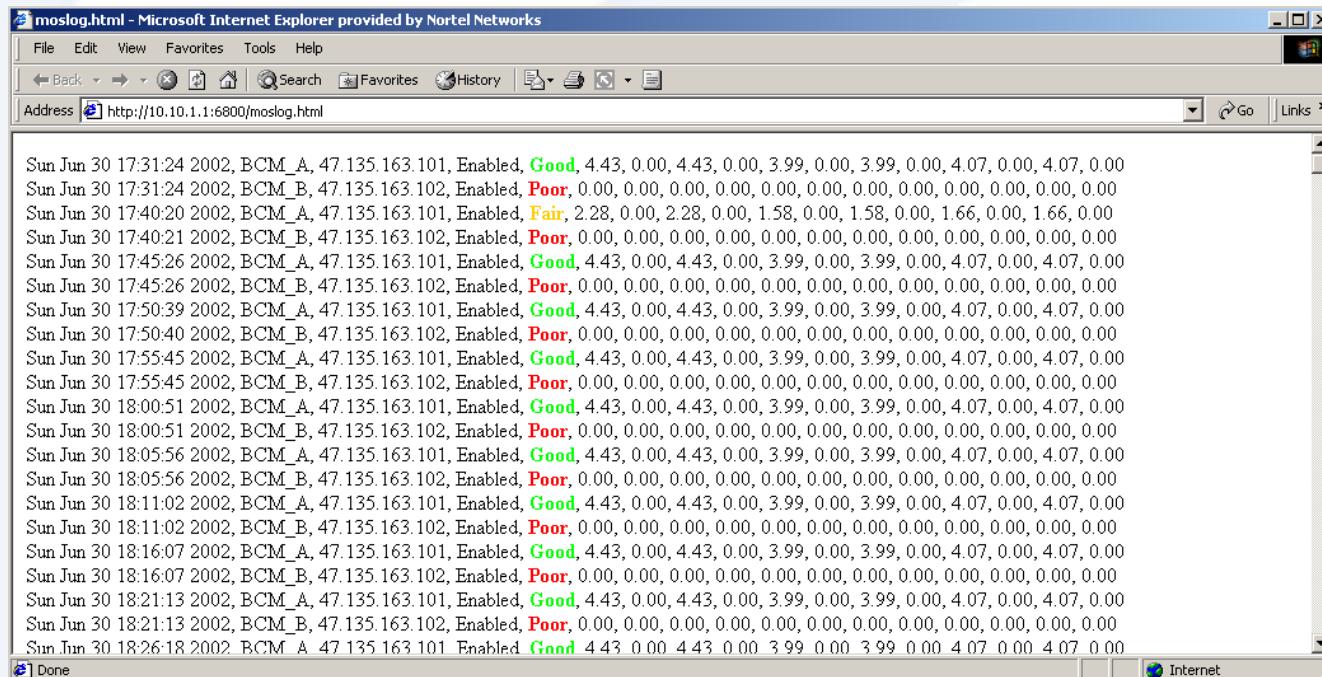
QoS Monitor Enhancements – Logging

- QoS Monitor can now log its QoS measurements for later viewing and analysis.
- The size and the frequency of the logging functionality of the MOS is programmed via the “Mean Opinion Score” and “Logging” menu.



QoS Monitor Enhancements - Demo

- Here is a sample of the logging functionality of the QOS monitor.
- This could be used to help analyze network issues and determine potential causes of voice quality issues.
- Example: Customer complains of poor voice quality at 5:40PM on Sunday. The logs could be looked at to see what the BCM perceives the MOS values to be at that time. If they are low it would explain the poor quality.



The screenshot shows a Microsoft Internet Explorer window with the title "moslog.html - Microsoft Internet Explorer provided by Nortel Networks". The address bar displays "http://10.10.1.1:6800/moslog.html". The main content area contains a large block of text representing a log file. The log entries are timestamped and detail QoS monitoring data for BCM modules A and B. The data includes fields such as timestamp, module ID, configuration status, and MOS scores (Good, Poor, Fair) along with numerical values. The log entries are repeated multiple times, likely representing a continuous stream of data.

```
Sun Jun 30 17:31:24 2002, BCM_A, 47.135.163.101, Enabled, Good, 4.43, 0.00, 4.43, 0.00, 3.99, 0.00, 3.99, 0.00, 4.07, 0.00, 4.07, 0.00
Sun Jun 30 17:31:24 2002, BCM_B, 47.135.163.102, Enabled, Poor, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
Sun Jun 30 17:40:20 2002, BCM_A, 47.135.163.101, Enabled, Fair, 2.28, 0.00, 2.28, 0.00, 1.58, 0.00, 1.58, 0.00, 1.66, 0.00, 1.66, 0.00
Sun Jun 30 17:40:21 2002, BCM_B, 47.135.163.102, Enabled, Poor, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
Sun Jun 30 17:45:26 2002, BCM_A, 47.135.163.101, Enabled, Good, 4.43, 0.00, 4.43, 0.00, 3.99, 0.00, 3.99, 0.00, 4.07, 0.00, 4.07, 0.00
Sun Jun 30 17:45:26 2002, BCM_B, 47.135.163.102, Enabled, Poor, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
Sun Jun 30 17:50:39 2002, BCM_A, 47.135.163.101, Enabled, Good, 4.43, 0.00, 4.43, 0.00, 3.99, 0.00, 3.99, 0.00, 4.07, 0.00, 4.07, 0.00
Sun Jun 30 17:50:40 2002, BCM_B, 47.135.163.102, Enabled, Poor, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
Sun Jun 30 17:55:45 2002, BCM_A, 47.135.163.101, Enabled, Good, 4.43, 0.00, 4.43, 0.00, 3.99, 0.00, 3.99, 0.00, 4.07, 0.00, 4.07, 0.00
Sun Jun 30 17:55:45 2002, BCM_B, 47.135.163.102, Enabled, Poor, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
Sun Jun 30 18:00:51 2002, BCM_A, 47.135.163.101, Enabled, Good, 4.43, 0.00, 4.43, 0.00, 3.99, 0.00, 3.99, 0.00, 4.07, 0.00, 4.07, 0.00
Sun Jun 30 18:00:51 2002, BCM_B, 47.135.163.102, Enabled, Poor, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
Sun Jun 30 18:05:56 2002, BCM_A, 47.135.163.101, Enabled, Good, 4.43, 0.00, 4.43, 0.00, 3.99, 0.00, 3.99, 0.00, 4.07, 0.00, 4.07, 0.00
Sun Jun 30 18:05:56 2002, BCM_B, 47.135.163.102, Enabled, Poor, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
Sun Jun 30 18:11:02 2002, BCM_A, 47.135.163.101, Enabled, Good, 4.43, 0.00, 4.43, 0.00, 3.99, 0.00, 3.99, 0.00, 4.07, 0.00, 4.07, 0.00
Sun Jun 30 18:11:02 2002, BCM_B, 47.135.163.102, Enabled, Poor, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
Sun Jun 30 18:16:07 2002, BCM_A, 47.135.163.101, Enabled, Good, 4.43, 0.00, 4.43, 0.00, 3.99, 0.00, 3.99, 0.00, 4.07, 0.00, 4.07, 0.00
Sun Jun 30 18:16:07 2002, BCM_B, 47.135.163.102, Enabled, Poor, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
Sun Jun 30 18:21:13 2002, BCM_A, 47.135.163.101, Enabled, Good, 4.43, 0.00, 4.43, 0.00, 3.99, 0.00, 3.99, 0.00, 4.07, 0.00, 4.07, 0.00
Sun Jun 30 18:21:13 2002, BCM_B, 47.135.163.102, Enabled, Poor, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
Sun Jun 30 18:26:18 2002, BCM_A, 47.135.163.101, Enabled, Good, 4.43, 0.00, 4.43, 0.00, 3.99, 0.00, 3.99, 0.00, 4.07, 0.00, 4.07, 0.00
```

5 Minute Break

Applications

Interactive Voice Response - Introduction

- Interactive Voice Response (IVR) is a software application that accepts touch-tone keypad selection and provides appropriate responses in the form of voice, fax, callback and e-mail . IVR is usually part of a larger application that includes database access.
- Integration of Nortel Networks Periphonics IVR solution onto the BCM platform has been done for BCM 3.0.
- This is a Software only solution with no new hardware required.
- The IVR has two pieces which make it up.
 - The IVR Run Time Engine – On every BCM 3.0 and enables with key codes.
 - The IVR Customer Application – Custom for every customer with no pre-made applications available.

IVR order codes

The IVR Run Time engine has key codes for 2-24 voice ports. They are:

Description	Part Numbers	
BCM IVR Run Time Engine - 2 IVR Channels	NTKC0086	A0990917
BCM IVR Run Time Engine - 4 IVR Channels	NTKC0087	A0990918
BCM IVR Run Time Engine - 8 IVR Channels	NTKC0088	A0990919
BCM IVR Run Time Engine - 16 IVR Channels	NTKC0089	A0990920
BCM IVR Run Time Engine - 24 IVR Channels	NTKC0090	A0990921

Interactive Voice Response – Supported Features

Since all IVR applications are custom designed by Nortel Networks Professional Services the features are generic and can be used in any application.

Supported IVR Features on BCM

- Up to 24 Simultaneous connections
- Up to 2 Simultaneous Incoming/Outgoing IVR Fax's
- IVR can answer all types of trunks (IP, ISDN, Analog)
- From an internal telephone set:
 - Call forward to IVR DN
 - Transfer to IVR DN
- BCM IVR can only support 1 IVR application

Interactive Voice Response – Supported Features (cont'd)

Supported IVR Features on BCM (cont'd)

- Support of CLID/ANI/DNIS passed to the IVR application.
- Ability to store recordings and read information back to the user.
- Transfer from IVR to:
 - Call Center Skillset
 - Call Pilot Mailbox
 - Telephone DN
 - Hunt Group DN
 - External Phone Number

Interactive Voice Response – Supported Features (cont'd)

- Database Integration to many back end products. Some are:
 - Oracle
 - Sybase
 - DB2
 - Microsoft SQL Server
 - Microsoft Access

Interactive Voice Response – BCM Platform Enhancements

BCM Platform Enhanced to:

- System Inventory now reflects IVR versions.
- Unified Manager has script installation area for IVR applications.
- Maintenance Report a Problem wizard now contains IVR logs.
- Key codes added to support runtime engine.
- IVR runtime errors/events reported to BCM event log.
- IVR Documentation added to BCM.
- IVR PeriView included on BCM Client install Page.
- BRU backup/restore of IVR components
- NCM can access IVR data.
- Feature 985 Integration to view IVR DN.

Silent Monitor for Call Center - Introduction

- This feature allows a supervisor to silently monitor an agent set. All calls to/from that set are monitored while set monitoring is enabled.
- Configured Basic or Professional Call Center.
- Maximum of 7 active supervisor sessions.
- In order to use this feature an agent must be made a supervisor.

The screenshot shows the 'Agent List' page of the CallPilot Manager. The left sidebar contains navigation links for Mailbox Administration, Auto-Attendant, Custom Call Routing, Networking, Call Center (with sub-links for Agent List, Add Many Agents, Skillset List, General Properties, Greetings, Caller Input Rules, and CLID/DNS Routing Table), Reports, Configuration, and Operations. The main content area is titled 'Agent List' and displays a table with three rows of agent information. The columns are labeled ID, Name, Super., and Commands. The first row has an ID of 1, a name of 'JC Thibault', and a 'Super.' status of 'Yes'. The second row has an ID of 2, a name of 'Agent2', and a 'Super.' status of 'No'. The third row has an ID of 3, a name of 'Agent3', and a 'Super.' status of 'No'. The 'Commands' column for each row includes links for Force Off, Change, Reset Password, and Delete. An 'Add' button is located at the bottom right of the table. A red arrow originates from the text 'In order to use this feature an agent must be made a supervisor.' and points directly to the 'Super.' column in the table, with a red box highlighting the column header.

ID	Name	Super.	Commands
1	JC Thibault	Yes	Force Off Change Reset Password Delete
2	Agent2	No	Force Off Change Reset Password Delete
3	Agent3	No	Logged Off Change Reset Password Delete

Silent Monitor for Call Center - Demo

- To active Silent Monitor, the Supervisor must access Feature 904 and login as the supervisor.



1. Press Feature 904 & enter your Agent ID



2. Enter your Agent password.



3. Select IN

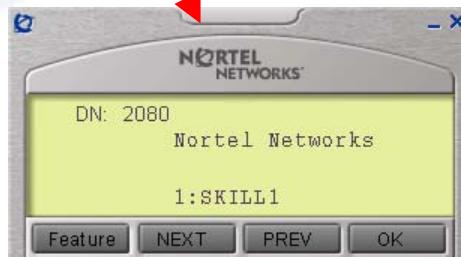
Silent Monitor for Call Center – Demo continued



4. Select OK



5. Select SUPER



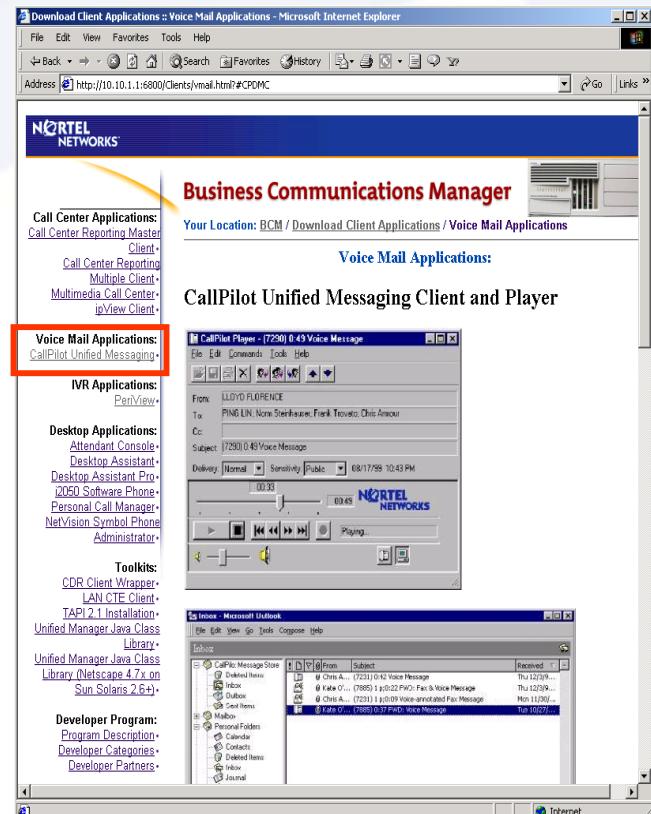
6. Choose the Skillset to monitor



7. Choose the agent ID to monitor

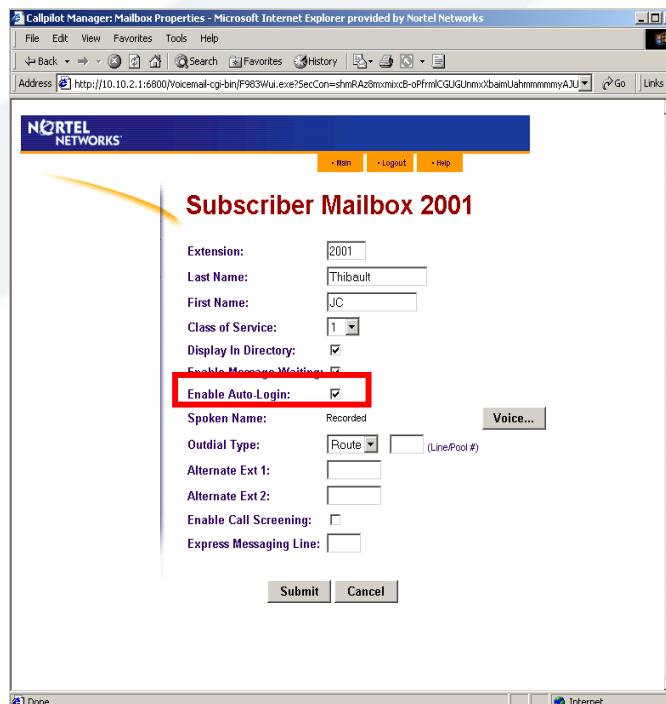
New Call Pilot 2.0 Unified Messaging Client

- New version of Unified Messaging Client 2.01 is available from the Client web page .
- This new client has many small usability enhancements
 - Increased user control over client configuration. The Call Pilot desktop client configuration options (Configuration Options Properties) now include:
 - Notification Interval
 - Default Form for compose/forward reply
 - Option to convert messages to WAV for non-Call Pilot users
 - Show message waiting indicator on taskbar
 - Use system speaker volume
 - Use system microphone level
 - Dynamic Address Book Queries
 - User Hang-up Button from Telset Player
 - Ability to mark messages unread from Outlook



Call Pilot Manager – Auto Logon

- With Auto-Login enabled for the mailbox, the user will not be required to enter a password after invoking Feature 981.
- This is done for any extensions assigned to the mailbox whether they are alternate or the primary.
- This is disabled by default for any new mailbox for obvious security reasons.

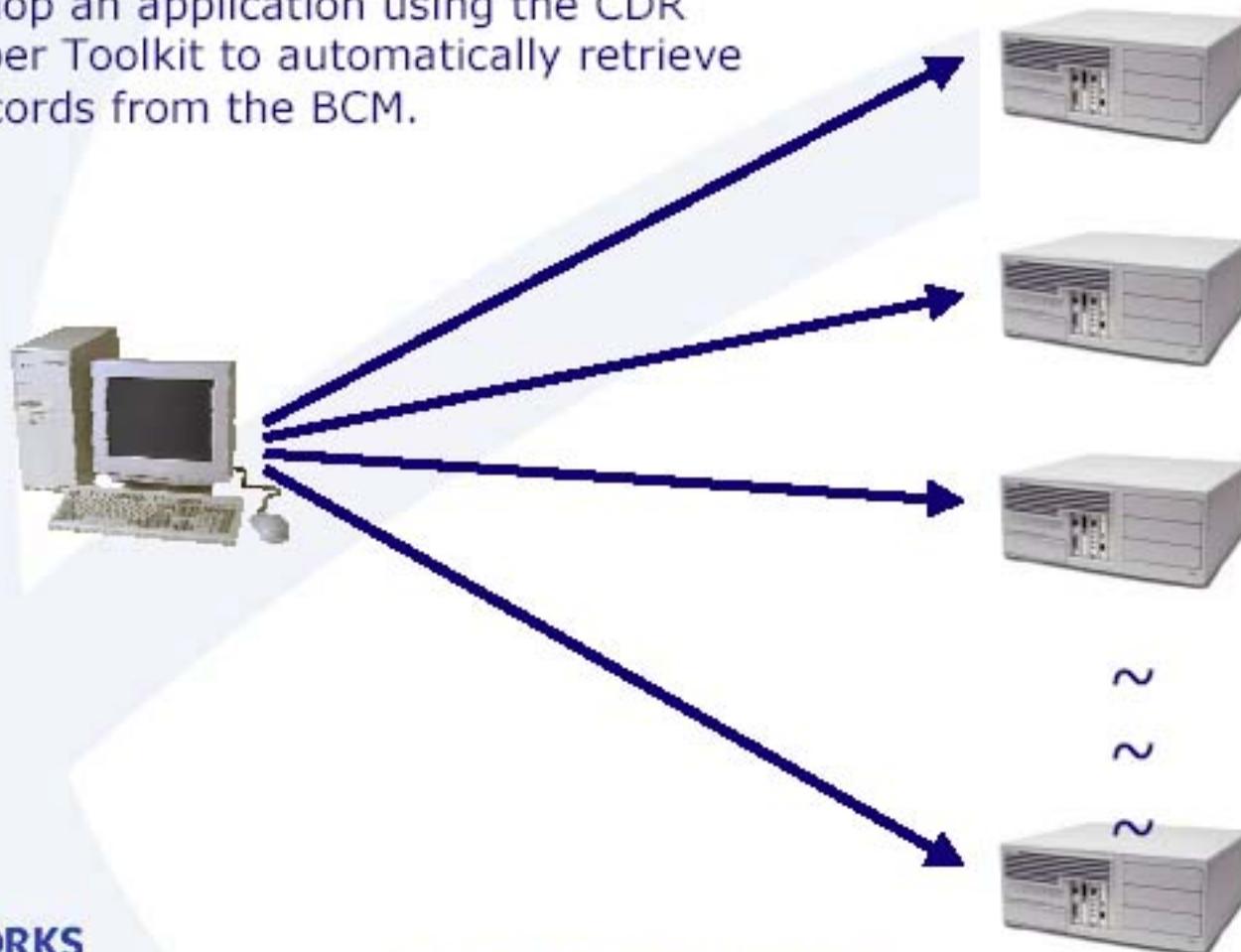


Try and Buy Keycode for Voice Mail boxes

- New try and buy Keycode for Voicemail boxes. This allows customer's to try voice mail out before purchasing.

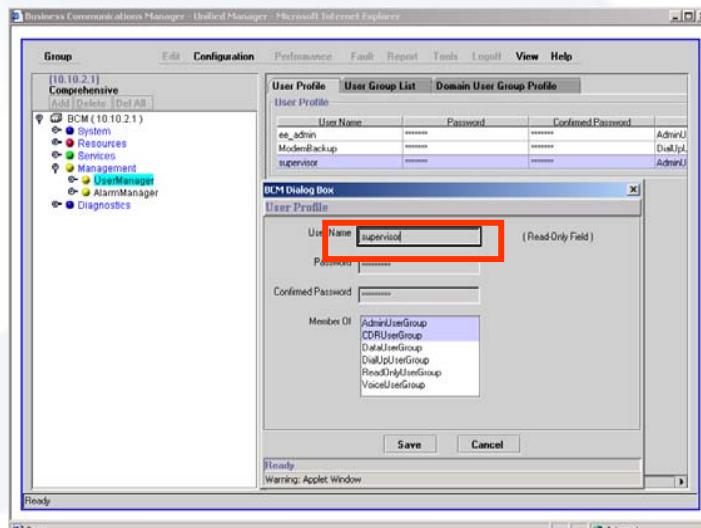
CDR Pull - Introduction

- With the CDR pull functionality on the BCM the customer will be able to develop an application using the CDR Developer Toolkit to automatically retrieve CDR records from the BCM.

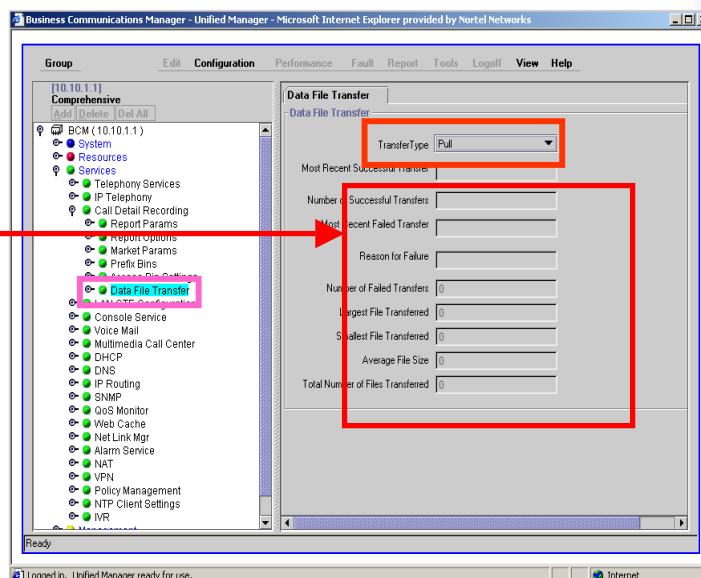


CDR Pull - Programming

- Steps required to program the CDR Pull.
- Create or use an existing user that will have the “**CDRUserGroup**” privileges.



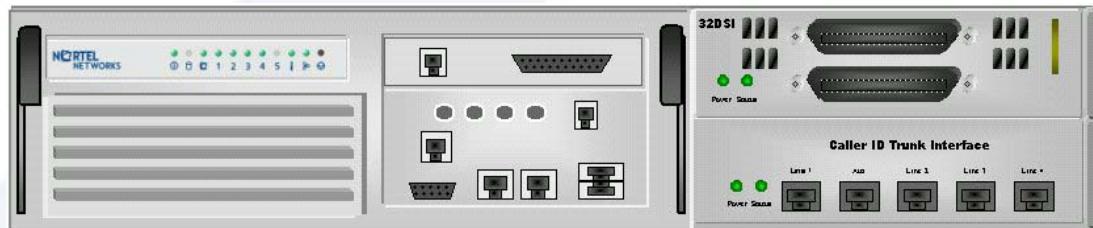
- Set the Transfer Type to be “**Pull**” for the “**Data File Transfer**”.
- Some basic stats around files transferred are displayed.



Base Platform

BCM 200

- BCM 200 Specific Features
- 1 x MBM Back plane – with 2 MBM capacity
- CPU Celeron 850Mhz
- Support for Redundant Hard Drive and Fan (no redundant power supply)
- Add a second hard disk drive, RAID card and cables for use in a RAID 1 duplicate disk configuration.
- Will include a depopulated MSC 1A card: 2 PEC slots, no expansion module support.



Description	Part Numbers	
NA BCM 3.0 Base 2-Bay 2 LAN, STD	NT7B10AADT	A0990913

BCM 200 (cont'd)

Three bundles were created to help aid ordering. They are:

- BCM 200 Digital Station Bundle
 - BCM 200 Chassis
 - 4x16 Combo MBM
 - 16 Seat CallPilot Mailbox Keycode
- BCM 200 Digital Station MCDN Bundle
 - BCM 200 Chassis
 - 4x16 Combo MBM
 - MCDN Voice Networking Keycode
- BCM 200 IP Station Bundle
 - BCM 200 Chassis
 - CTM-4 MBM
 - 16 Seat IP Telephony Client Keycode
 - 16 Seat CallPilot Mailbox Keycode

BCM 200 (cont'd)

Description	Part Numbers	
NA BCM 3.0 BCM200 Digital Station Bundle	NTBU0641	A0994325
NA BCM 3.0 BCM200 Digital Station MCDN Bundle	NTBU0642	A0994326
NA BCM 3.0 BCM200 IP Station Bundle	NTBU0643	A0994327

BCM 400

BCM 400 Specific Features

- Intel PIII 700MHz Processor
- 2 x MBM Back planes – each with 2 MBM capacity for a total of 4 MBM's
- BCM 400 to support standard and redundant power supplies in the same chassis design.



BCM 400 (cont'd)

BCM 400 Specific Features

- Chassis divided into two separate function trays which allows for in rack part replacement
 - Slide out 2U Advanced function tray (Top)
 - Slide out 2U Base Function tray (Bottom)
- Four 1U x 5.75" Media Bay Modules
- Full expandable with BCM expansion chassis
- Blank label over the RAID LED status display area if no RAID is present
- New plastic MBM blank covers
- 256MB DIMM (SDRAM)
- 20GB Maxtor HDD (Same as current BCM)
- 2 on-board Intel-based 10/100 Ethernet interfaces on all systems.

BCM 400 (cont'd)

- Modem: Connexant/Multitech SC56H1 PN SC43-E310-001
- WAN card is field installable in all systems. (no longer included in any base units.)
- Redundant Systems have redundant hard drives, fans and power supplies.

Description	Part Numbers	
NA BCM 3.0 Base System 4-Bay 2 LAN, Standard	NT7B10AADH	A0898618
NA BCM 3.0 Base System 4 Bay 2 LAN, Redundancy	NT7B10AADJ	A0898620

Improved Upgrade from 2.5 & FP1

- Upgrades from BCM 2.5, BCM 2.5 FP1 and BCM 2.5 FP1 Maintenance release will be supported.



Improved Upgrade from 2.5 & FP1 (cont'd)

- Upgrades are now keycode protected. Keycode is available in the Upgrade kit or stand alone.
- With BCM 3.0 only a 20 GB hard drive is supported.
- There will be a program in Q1 that will deliver an upgrade for 8 GB hard drives.
- The hard drive partitioning has drastically changed with BCM 3.0 in order to help aid upgrades.

Description	Part Numbers	
BCM 3.0 Software Upgrade Authorization Code	NTKC0084	A0893915
BCM 3.0 Software Upgrade CD	NTAB3394	A0990512
BCM 3.0 Software Upgrade Kit (include both of the above)	NTAB3417	A0993443

Drive Partition Size

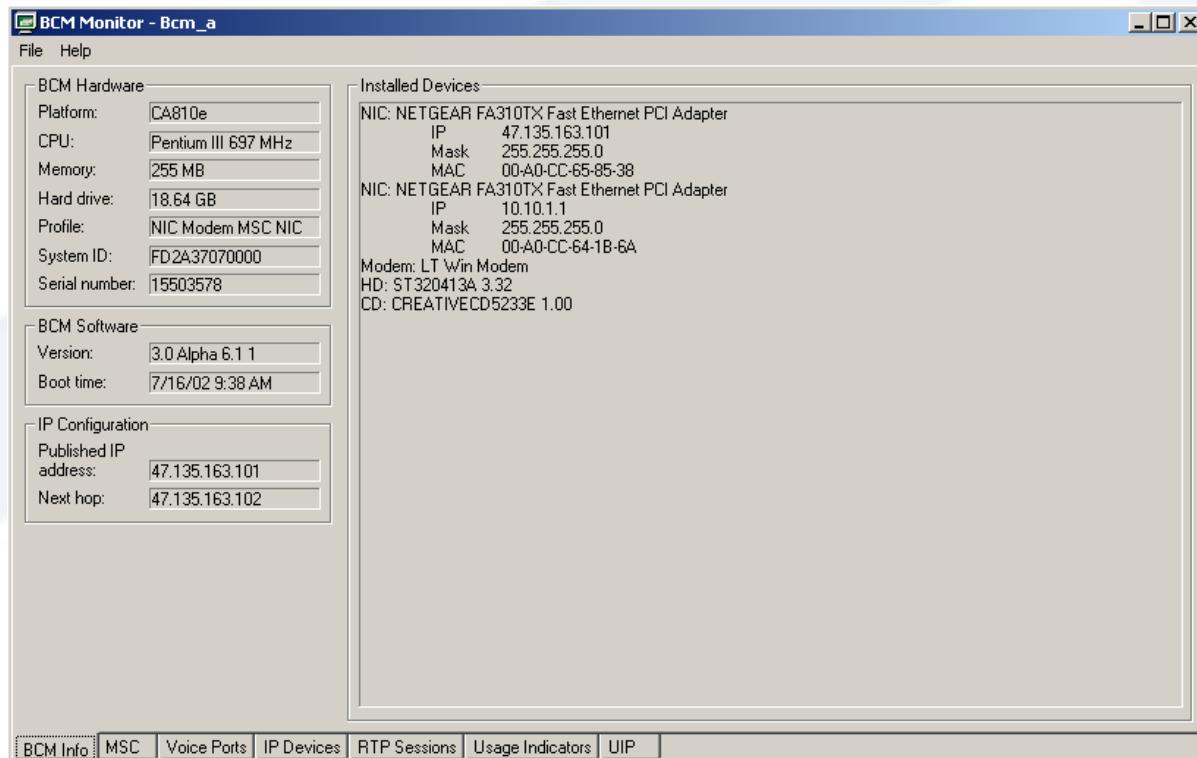
Partition labels Order	Size (MB)	Drive Type	Drive	
WinNT	2502.3	Primary	C:	2
Data	9452.3	Logical	D:	4
Docs	2008.1	Logical	E:	5
NNDrive	2008.1	Logical	F:	6
NNInactiveDrive	2008.1	Logical	G:	7
Dos	15.7	Primary	H:/C:	1
MainOS	1004.1	Primary	I:	3

Improved Upgrade - Core Upload

- Another new improvement in the BCM upgrade process is the faster core upload to the MSC card. The upload has been improved to 10 minutes rather than 30 to 45 minutes on the previous versions.
- This means any core telephony upgrades done in the future will require only 10 minutes.
- As part of this new process the blocks that used to be seen being sent to the MSC card are no longer visible.

BCM Monitor Tool - Introduction

- BCM Monitor is an application that allows the monitoring of real time information of the BCM system. It works on BCM 3.0 systems as well as BCM 2.5 Feature Pack 1 system however on non-BCM 3.0 systems some features will not be available.

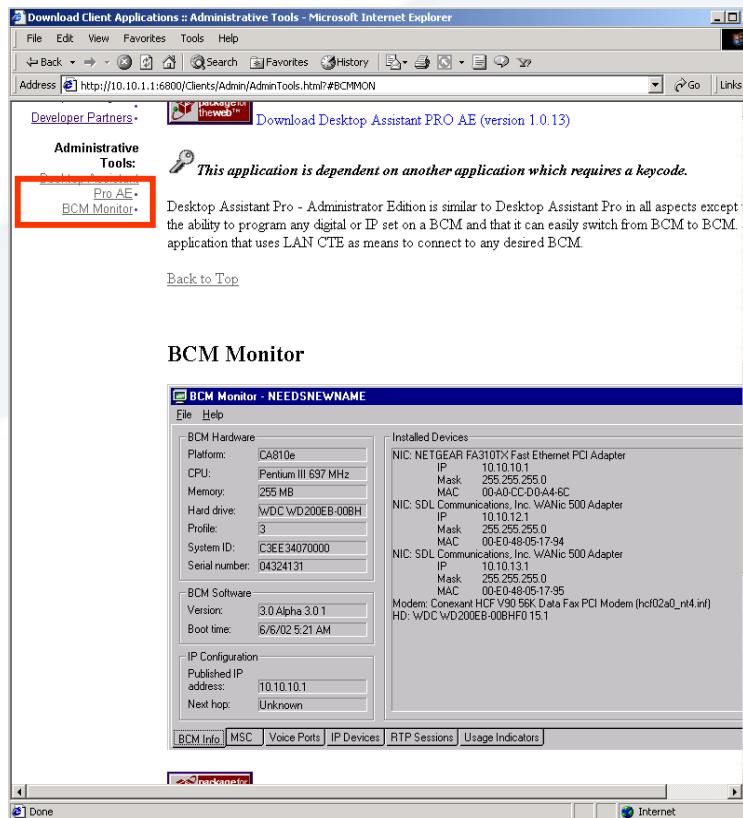


BCM Monitor Tool - Requirements

- Requirements are :
 - Windows 95 with Internet Explorer 5.0 (or higher)
 - Windows 98 with Internet Explorer 5.0 (or higher)
 - Windows ME
 - Windows NT 4 with Internet Explorer 5.0 (or higher)
 - Windows 2000
 - Windows XP

BCM Monitor Tool – Installation

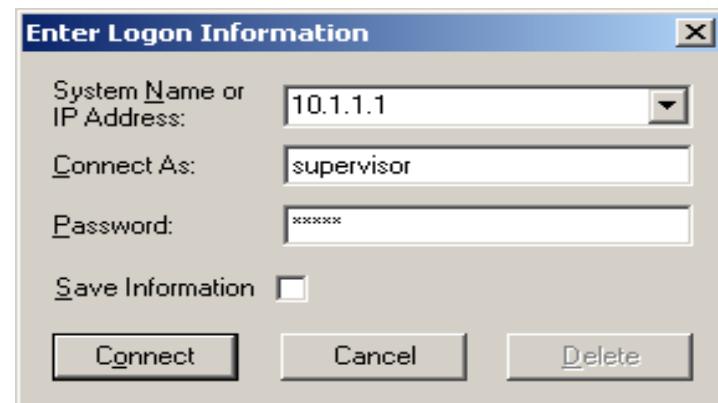
- The BCM Monitor tool application is available on the Install Client web page  and password protected with the administrators password. (default of user=supervisor & password=visor)



BCM Monitor Tool – Login

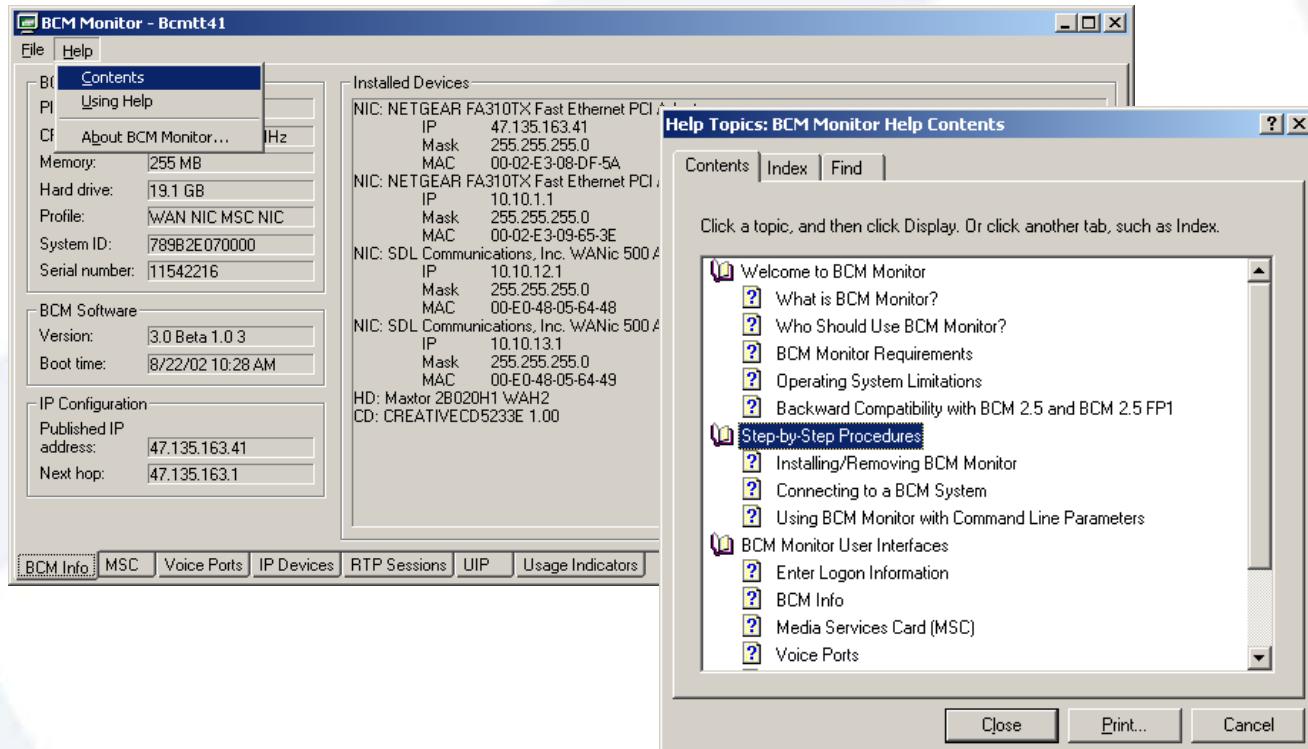
- To use BCM Monitor simply run the BCM monitor program.
- Enter the IP Address or System Name followed by username and password.
(the username and password is the BCM's administrators password)
- Then press Connect
- The BCM Monitor remembers the last 5 connection in the pull down menu as well it can save user and password information.

Note: Another method to create PC Icons to BCM systems is create Windows shortcuts to the BCMMonitor.exe followed by the IP address of the BCM. This allows you to have Icon's on your PC for any BCM.



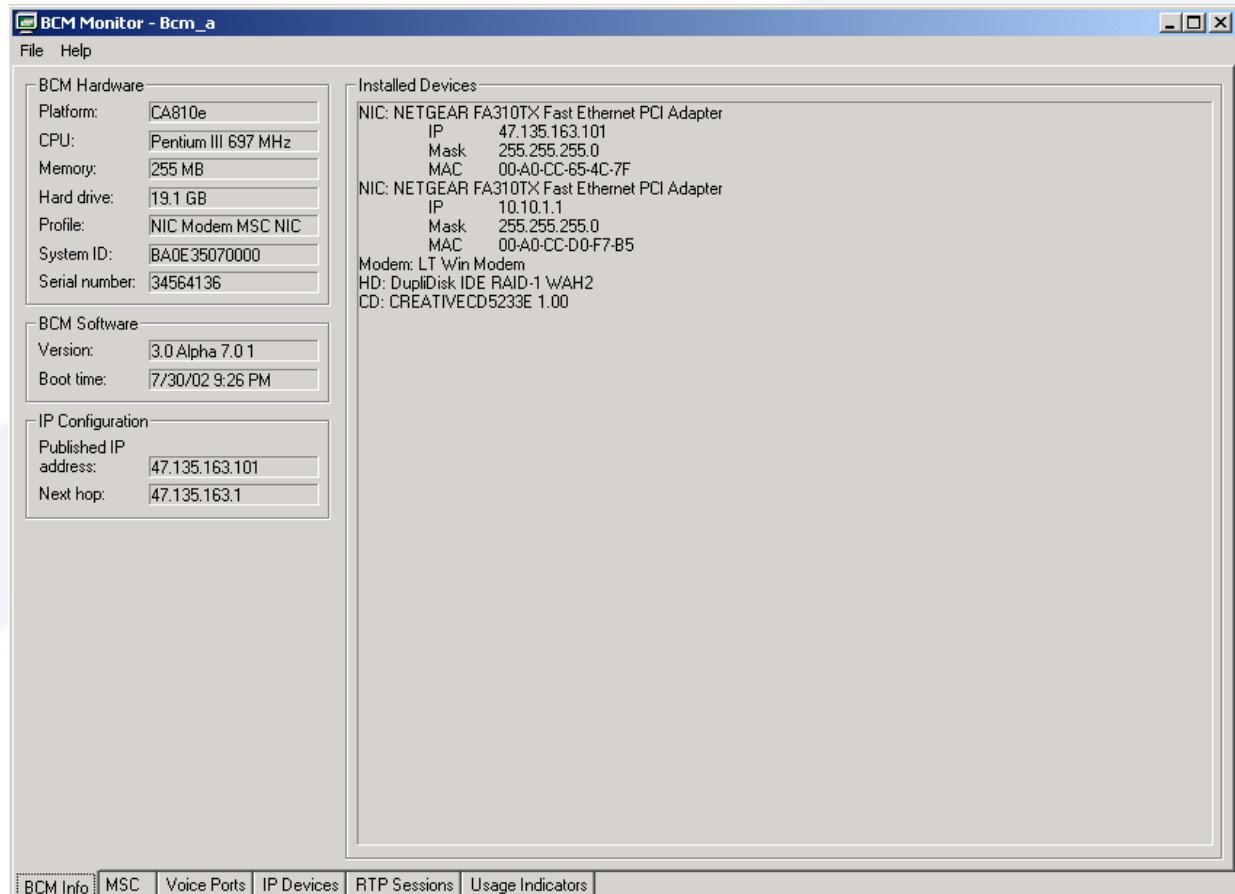
BCM Monitor Tool – Online Help

- The BCM monitor has a context sensitive help menu available by pressing F1 in any part of the program or using the help pull down menu.



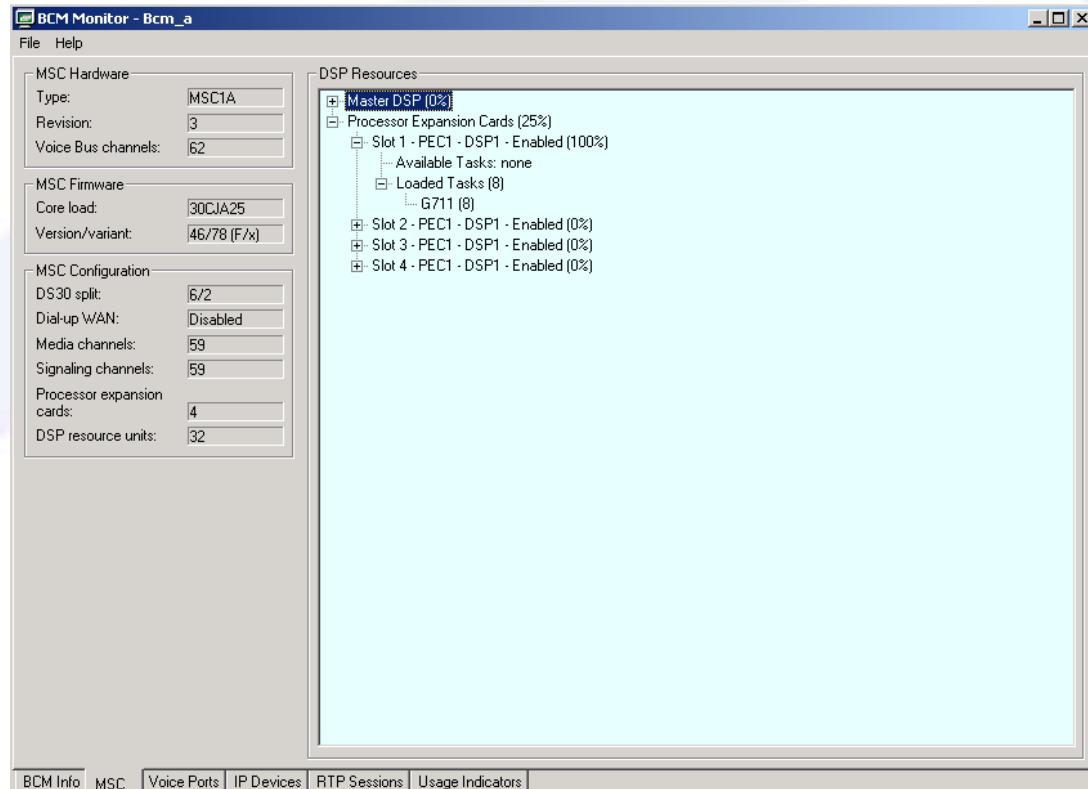
BCM Monitor Tool – BCM Info Tab

- BCM info tab shows BCM Hardware and Software information.



BCM Monitor Tool – MSC Tab

- MSC – DSP resource units Tab show real time activity within the BCM's DSP's (PEC's).
- This could be used to determine if a system needs to assign/install more resources. (PEC's or Resource Management)



BCM Monitor Tool – Voice Ports Tab

- Voice ports (Call Center, Voice Mail and IVR) Tab shows real time activity with the voice ports.
- This can be used to monitor voice port activity.

